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U. S. DEPARTMENT OF COMMERCE
BUREAU OF FISHERIES

FISHERY INDUSTRIES OF THE UNITED STATES
1937

By R. H. FIEDLER

ADMINISTRATIVE REPORT No. 32

U. S. DEPARTMENT OF COMMERCE
DANIEL C. ROPER, Secretary
BUREAU OF FISHERIES
FRANK T. BELL, Commissioner

Administrative Report No. 32

FISHERY INDUSTRIES OF THE UNITED STATES

1937

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APPENDIX III TO REPORT OF COMMISSIONER OF FISHERIES
FOR THE FISCAL YEAR 1938

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ADMINISTRATIVE REPORT SERIES

Since the beginning of the Administrative Report Series, considerable confusion has arisen concerning the system of numbering the separates composing it. Inasmuch as the Reports of the Divisions vary in order from year to year, many have found their designations as "Appendix No. I, II, III, or IV" very confusing. To relieve this, it has been decided to number them as "Administrative Report No. —." Inasmuch as 20 separates had already been printed in this series before starting the numbers, it was deemed advisable to begin the numbering with Administrative Report No. 21. Of course, numbers cannot be printed on those already off the press, but for the information of those who wish to know what the first 24 were, they are numbered for filing purposes as follows:

No. 1. Report, Commissioner of Fisheries, 1931.
No. 2. Alaska Fishery and Fur-Seal Industries, 1930.
No. 3. Fishery Industries of the United States, 1930.
No. 4. Progress in Biological Inquiries, 1930.
No. 5. Propagation and Distribution of Food Fishes, 1931.
No. 6. Report, Commissioner of Fisheries, 1932.
No. 7. Alaska Fishery and Fur-Seal Industries, 1931.
No. 8. Fishery Industries of the United States, 1931.
No. 9. Progress in Biological Inquiries, 1931.
No. 10. Propagation and Distribution of Food Fishes, 1932.
No. 11. Alaska Fishery and Fur-Seal Industries, 1932.
No. 12. Progress in Biological Inquiries, 1932.
No. 13. Fishery Industries of the United States, 1932.
No. 14. Propagation and Distribution of Food Fishes, 1933.
No. 15. Fishery Industries of the United States, 1933.
No. 16. Alaska Fishery and Fur-Seal Industries, 1933.
No. 17. Progress in Biological Inquiries, 1933.
No. 18. Propagation and Distribution of Food Fishes, 1934.
No. 19. Alaska Fishery and Fur-Seal Industries, 1934.
No. 20. Fishery Industries of the United States, 1934.
No. 21. Progress in Biological Inquiries, 1934.
No. 22. Propagation and Distribution of Food Fishes, 1935.
No. 23. Alaska Fishery and Fur-Seal Industries, 1935.
No. 24. Fishery Industries of the United States, 1935.

Note that the last Commissioner's Report was for 1932. Since then its place has been taken by a reprint from the Report of the Secretary of Commerce under the title "Bureau of Fisheries." Inasmuch as it is no longer a Bureau publication, it is not numbered; but it will be supplied to any who request the Report of the Commissioner for any year since 1932.

FISHERY INDUSTRIES OF THE UNITED STATES, 1937[1]

By R. H. FIEDLER, *Chief, Division of Fishery Industries*

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[1] Administrative Report No. 32, Appendix III to the Report of the U. S. Commissioner of Fisheries, 1938. Approved for publication, June 23, 1938.

FOREWORD

This report constitutes a summary of the activities of the Division of Fishery Industries as well as a review of the fishery statistics collected by the Division during the past year. As its name indicates, this Division of the Bureau is concerned with the activities and welfare of the commercial fisheries and fishery industries and the fishermen and shoresmen engaged therein; the fish canning and preserving industries; and the trade in fishery products. Its functions include the conduct of studies or activities: (1) To determine the extent and magnitude of our aquatic resources and the commercial importance of our fishery industries; (2) to learn the economic condition of fishermen and shoresmen engaged in the fishery industry, their place in the national economy, and what measures can be taken to improve their well-being; (3) to determine the character, utility, and effectiveness of different forms of fishing apparatus and vessels, suggest improvements therein, and discourage the use of those forms which are unnecessarily destructive or unprofitable; (4) to learn the effect of fishing on the supply of fish and suggest measures to promote orderly and sustained production; (5) to study and develop fisheries for hitherto unutilized fishes; (6) to investigate the preservation of fishery products, suggest improved methods, and discourage wasteful practices in this field; (7) to ascertain what use can be made of aquatic products not now utilized to economic advantage; (8) to inquire into the nutritive value of aquatic foods for man and his domestic animals, and promote the consumption of these foods; (9) to ascertain the means and methods of transporting fishery products on land and sea and recommend economical practices; (10) to inquire into the condition and extent of the wholesale and retail trade in fishery products and promote the more orderly marketing of our fishery harvest; (11) to introduce useful foreign methods or processes of capture, preservation, utilization, or marketing fishery products; (12) to handle matters relative to the administration of the act which authorizes cooperative associations of producers of aquatic products; and (13) to conduct the fishery market news service authorized by act of Congress in 1937.

Results of the various technological, economic, and marketing investigations carried on by the Division are published in separate documents as each project is completed, and a brief résumé of each current project is contained in this report. Information obtained from statistical surveys is published in part 2 of this report, which includes all the detailed statistical information that has become available since issuance of the previous report,[2] together with such summarized statements and interpretations of the statistics as are deemed significant and useful.

Part 1. OPERATIONS OF THE DIVISION

COOPERATION WITH OTHER FEDERAL AGENCIES

In line with established policy, the Division cooperated during the year with other Federal agencies where their activities required information or advice concerning the technology, economics, or statistics of the fishery industries, and, similarly, this Division utilized the experience of other Federal agencies where they could assist by furnishing data or counsel in the work of this Division.

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[2] Fishery Industries of the United States, 1936, by R. H. Fiedler: Appendix I to the Report of the U. S. Commissioner of Fisheries for 1937, pp. 1–276.

More specifically, both the economics and technological staffs cooperated with the Federal Surplus Commodities Corporation in connection with its purchase for relief agencies of surplus fish, and with the distribution of this fish to relief clients. The economics staff aided by determining the quantities and location of such stocks of fish to facilitate purchase, while the technological staff cooperated in assembling data on, and in conducting practical demonstrations of, the nutritive value of fishery products and fish cookery.

The technologists of the Division gave courses in canning fishery products to State Extension Service workers at the request of the State Extension Service of the United States Department of Agriculture.

Our technologists also rendered considerable assistance to chemists of the Bureau of Home Economics of the United States Department of Agriculture in assembling data on the chemical composition and food value of the leading commercial species of fish and shellfish. These data are to be incorporated by the Bureau of Home Economics in a revised publication on the composition of principal American food materials.

Chemists of the Food and Drug Administration, United States Department of Agriculture, conferred at length with our technologists for the purpose of obtaining information on methods of determining fatty acid in fish meal and the effect of the presence of relatively large amounts of fatty acid in fish meal on its feeding value.

Assistance was given by the statistical and economics staffs to members of the Rural Electrification Administration in connection with the importance of the commercial fisheries in certain areas of Virginia and North Carolina in which that agency was conducting studies.

Our economists and statisticians were of considerable assistance to members of the staff of the Bureau of Chemistry and Soils in their assembly of historical data, especially of a statistical nature, relating to the domestic manufacture of fish scrap and meal.

In the conduct of several phases of economic and technological work, the Division received the cooperation of the International Fisheries Commission at Seattle, Wash. This included certain technical studies on halibut and halibut-liver oil, and the collection of economic and statistical data on the North Pacific halibut fishery.

The Bureau also has worked with various Federal agencies in obtaining statistical data on our fisheries. In a cooperative arrangement, the Bureau of Agricultural Economics, Department of Agriculture, furnished statistics on the volume of cold-storage holdings of fish and quantities frozen, and the health authorities in Washington, D. C., assisted in obtaining data on the volume of fish handled at the Municipal Fish Wharf and Market in this city. Cooperation was accorded the Bureau of the Census in obtaining for that Bureau figures on the volume of the quarterly production and holdings of fish oils in the United States.

In addition to the specifically enumerated instances of cooperation with other Federal agencies cited above, which are on a continuing basis or were of a more detailed nature, it should be stated that a very close relationship exists between this Division and many of those Federal agencies whose duties require an interest in fish in particular, foodstuffs or feedstuffs in general, or in the various marine activities.

The staff of the Division is in almost daily contact with some one or more of these Federal agencies in the exchange of information of inestimable value to the scientific work of the Federal establishment.

COOPERATION WITH STATE AGENCIES

The Bureau of Fisheries long ago began establishing cooperative relations with the States in fields of mutual interest and endeavor and, in succeeding years, has constantly encouraged, fostered, and expanded this cooperative plan of work. By working closely, whenever possible, with the members of the staffs of various State laboratories, institutions, and agencies, the Division has been able to increase the productivity of the relatively small staff and carry out cooperative investigations at considerably less cost.

During 1937, the following cooperative investigations with various States were conducted:

At Washington State College, Pullman, Wash., the Seattle technological laboratory staff cooperated with Dr. J. S. Carver in carrying on tests with poultry in the feeding of fish oils and meals.

As in past years members of the faculty and staff of the University of Washington, Seattle, Wash., worked in conjunction with the staff at the Seattle technological laboratory in the conduct of various studies or investigations relative to the preservation of fishery products of the Pacific coast. In addition, the University of Washington placed space at the disposal of members of the Seattle laboratory for the conduct of technological studies, for which space was not available in the Bureau's building.

The University of Maryland and the Maryland State Agricultural Experiment Station, College Park, Md., have given excellent cooperation to our technological staff. Free space for the Bureau's laboratories in two of its buildings (discussed elsewhere in this report) has been provided by the University of Maryland, and both the University and the Maryland State Agricultural Experiment Station are conducting in their various laboratories and departments of animal husbandry cooperative studies of the feeding value of fishery byproducts. The members of the staffs of these two institutions who have worked closely with the College Park technological staff are Dr. L. B. Broughton, Head of the Chemistry Department; Dr. W. C. Supplee and Mr. L. E. Bopst, of the Chemistry Department; Dr. L. H. James, Head of the Department of Bacteriology; and Professor M. H. Berry of the Dairy Department. These cooperative investigations in the abovementioned State universities and institutions are described in greater detail elsewhere in this report.

The technologists of the Division of Fishery Industries cooperated with Mr. L. E. Bopst and other chemists of the Maryland State Chemistry Department in developing methods for determining fatty acid in fish meal and the effect of the presence of relatively large amounts of fatty acid in fish meal on the subsequent feeding value of the fish meal.

Mr. Otto Lang, chemist of the Hooper Foundation, University of California, San Francisco, Calif., who is conducting and improving a State inspection service of fish as food, spent considerable time in conferences with our technologists in connection with the possible application of the Bureau's electrometric test for determining the relative freshness of fish, and other methods developed by our technologists, to his studies for the State of California.

Our technologists continued their active cooperation, during the past year, with the Minnesota and Virginia State Departments of Markets in connection with the extension and improvement of State marketing grades for fishery products sold in those States. In Virginia one of the Bureau's technologists assisted the State inspector in preparing grades for herring roe, discussed in detail elsewhere in this report.

In the conduct of its statistical research work, the Bureau obtains unusual cooperation from various States. The statistical surveys of the fisheries in the various States bordering on the Great Lakes, in the Pacific Coast States, and in Maryland, Virginia, and Delaware have been greatly facilitated by the cooperation obtained from the fishery agencies in these States. With this aid it is now only necessary for the Bureau to conduct partial surveys in these States to supplement the data available from the fishery agencies.

In addition, in nearly every other State where commercial fishing is prosecuted, some type of cooperation in its statistical work is rendered the Bureau by the State fishery agencies or other organizations. This makes it possible for the Bureau to make statistical surveys of a greater portion of our fishery industries than otherwise would be possible.

COOPERATION WITH FISHERY ADVISORY COMMITTEE

Members of the staff of the Division worked very closely during the year with the Fishery Advisory Committee of the Business Advisory Council for the Department of Commerce. This work took its principal form in the planning of demonstrations and preparation of informative material for the meeting of the Committee in Washington, D. C., on January 21 and 22, 1938.

As a part of the program arranged for the members of the Committee, the Division gave numerous demonstrations of its work. These included an historical review and discussion of current trends of our commercial fisheries, by the Chief of the Division, with the use of a specially prepared series of charts. The modern methods employed by the Bureau in preparing the large volume of fishery statistics which are collected and disseminated by the Bureau were demonstrated and explained by E. A. Power. Demonstrations of technological studies included an experimental method for the canning of the blue crab by N. D. Jarvis; the electrometric method for determining the freshness of fish, by J. M. Lemon and M. E. Stansby; a new method of treating fish by "controlled smoke" to obtain a uniform product, by W. T. Conn; experiments looking toward reduction of bacteria in fish by use of ultraviolet rays, by J. F. Puncochar; and methods for protein analysis of fish, by S. R. Pottinger. Recent studies relating to the food value of fish, and especially pointing out the large reserves of vitamins, proteins, and essential minerals contained in seafood, were discussed by J. R. Manning and others of the technological staff. These discussions were concerned with nutritional studies on fish oils, by C. F. Lee; fish proteins, by W. B. Lanham; and minerals in fishery products, by Hugo Nilson.

The Division also aided extensively in the planning of the seafood dinner held at the Mayflower Hotel on January 21, 1938, by members of the Fishery Advisory Committee and others. It further contributed numerous articles and graphic charts for the pamphlet entitled "Facts—The Key to Progress."

EXHIBITS AT EXPOSITIONS

During 1937, the Division continued its supervision of the Bureau's exhibits at the Texas Centennial Central Exposition at Dallas, Tex., and the Great Lakes Exposition at Cleveland, Ohio, both of which ran during second year; and arranged for displays for the Florida State Fair in Tampa, Fla., and the International Exposition of Paris, France. These exhibits attracted considerable attention from visitors and assisted materially in bringing before our people the need and value of fishery conservation.

TEXAS CENTENNIAL CENTRAL EXPOSITION

At the conclusion of this exposition, the main feature of the Bureau's display, consisting of a sport-fishing diorama, was sent to Tampa, Fla., and installed in the fisheries building of the Florida State Fair. This will remain on display there for the Pan American Exposition in Tampa in 1939.

GREAT LAKES EXPOSITION

At the conclusion of this exposition a portion of the display was loaned to the University Museums of the University of Michigan, Ann Arbor, Mich., for display in the fishery hall. This consisted of the mechanically-operated diorama depicting the effect of thermal conditions in Lake Erie on the commercial capture of fish, a diorama of fish-hatchery operations, models of Great Lakes fishery apparatus, a display explaining net preservative treatments, and miscellaneous canned fish products. Another portion of the display, consisting of a panel of articles made from fishery products, was loaned to the Conservation Division of the State of Ohio and placed on display in the Bureau's fish hatchery building at Put in Bay, Ohio.

INTERNATIONAL EXPOSITION AT PARIS, FRANCE

The Division prepared an exhibit of the Bureau's activities for use in the United States Government Building at this exposition in 1937. This consisted of a series of 24 colored transparencies of 16 by 20 inches each, arranged in a wall panel, and depicted the Alaska salmon fisheries, the Bureau's research work on fishery technology and biology, and its work in the propagation and distribution of fish. Each transparency was titled in both English and French. The Bureau was allotted $250 for the preparation of this exhibit. At the conclusion of the Exposition the transparencies were returned to the Washington office.

NEW YORK WORLD'S FAIR, AND GOLDEN GATE EXPOSITION, 1939

Members of the Division have devoted considerable time to plans for Bureau exhibits at the New York World's Fair, 1939, and the Golden Gate Exposition, 1939, at San Francisco, Calif. Federal displays or exhibits for these two fairs will not be constructed by the various Government agencies, as heretofore. Rather, these agencies will advise the Federal Commissions for the fairs of their respective activities, and these then will be incorporated in theme dioramas, which are to be constructed by the Fair Commission for display in the respective Federal buildings at the two fairs. The work of the Bureau at the New York Fair will be depicted in the following themes: Conservation, food, industry, recreation, and territories; and in the conservation theme at the Golden Gate Exposition. A separate Government committee has been appointed to develop plans for each theme and members of the Division's staff are acting on the theme committees, as indicated above. For the science display at the Golden Gate Exposition the Bureau is lending its panels depicting the migration of the Alaska salmon, and the eels of the Atlantic Ocean.

Members of the Division are also working in close cooperation with the New York World's Fair Administration on the development of a special Fishery Building to house industry exhibits, both foreign and domestic, and displays of various State fishery agencies, conservation leagues, and others. This is the first time a fair administration has made plans for a separate building of this type. The fair administration is desirous of having a display in this building by the Bureau of Fisheries, but to this date it has been impossible to arrange for it since funds for the purpose have not been provided.

SEVENTH WORLD'S POULTRY CONGRESS, 1939

Members of the Division also are cooperating with the United States Commission for the Seventh World's Poultry Congress in the preparation of an exhibit for display at Cleveland, Ohio, in July 1939, during the proceedings of the Congress. The Bureau's exhibit will consist of displays showing sources and manufacture of fish meal, oil, ground oyster shells, and other aquatic products which are used as feeds for poultry. The poultry industry is one of the principal consumers of these domestic fishery products, and it is expected the display will be of unusual benefit to industries manufacturing these commodities.

GENERAL

During the year the Division prepared exhibits for display at various sportsmen's fairs, and for several trade and professional association meetings which convened in Washington, D. C. These exhibits for use at the sportsmen's fairs consisted mainly of dioramas depicting the research work of the Bureau relative to fish propagation and oyster culture, while those for use at the trade meetings consisted of displays of the food value of fish, and charts and graphs showing the magnitude of the fisheries in the United States and Alaska.

During the past year the Bureau has experienced an unusual demand for display exhibits at various sportsmen's shows, fairs, and trade meetings and for window displays and school exhibits. These requests have come from groups in many parts of the country. Because of the costs involved the Bureau has been unable to fill these requests, except where it had material available from past fairs and where costs for transportation were not involved. This desire for exhibit material on the part of the general public indicates to the Bureau that many of our people are greatly interested in fishery conservation work, and that if it were possible to fill all the requests a greater portion of our population might obtain a clearer insight into the need for wildlife conservation, and a better knowledge of what can be done to promote conservation.

ECONOMIC AND MARKETING INVESTIGATIONS

There is a constant demand upon the Division of Fishery Industries for studies of the economics of the commercial fisheries, including investigations having application to the various functions of the marketing of fishery commodities. It has been possible to undertake only a limited program of long-time or continuing studies of this kind with available personnel and funds during recent years. It was necessary to further curtail work of this type during the past year due to the large volume of time required of the regular staff in connection with the planning and organizing of the Market News Service, to be discussed later in this report. However, as is customary each year, many short-time economic studies were made in order to satisfy the urgent demands placed upon the Division. Such studies most frequently are conducted preliminary to or closely associated with administrative activities of the Bureau and usually are not published. Results of some of these studies which were made during the past year are discussed briefly in the following paragraphs.

SURPLUS-FISH SITUATION

A study of the surplus-fish situation was made by the staff of the Division during March, and the findings were presented on March 29, 1938, by the Chief of the Division at the hearings before the Committee on Merchant Marine and Fisheries of the House of Representatives on H. R. 9765 and S. 3595 relating to the purchase and distribution of products of the fishery industry. The study made in the Division developed the following information:

Frozen and cured fish.—As of March 15, 1938, the holdings of frozen fishery products in cold-storage warehouses in the United States amounted to 45,700,000 pounds. This is 13,200,000 pounds in excess of the normal or 5-year average of the holdings as of March 15 and 5,900,000 pounds less than the holdings as of March 15, 1937. On March 15, 1937, the holdings were 22,371,000 pounds above normal, or 5-year average as of that date. Thus, the excess holdings this year on March 15 over the 5-year average are 9,100,000 pounds less than the holdings as of March 15, 1937, over the 5-year average, at that time. Under congressional authority in 1937, the Federal Surplus Commodities Corporation purchased a little over 12,000,000 pounds of fishery products (most of which was frozen) at a cost of about $621,000.

The excess holdings as of March 15, 1938, over the 5-year average as of this date, were made up principally of dressed and filleted cod, haddock, and pollock, and shellfish (mostly shrimp), sablefish, rosefish, salmon (mostly fall and pink varieties) and halibut. On March 15, 1937, the excess over the 5-year average as of that date was accounted for mainly by the large holdings of whiting, various species of groundfish (cod, haddock, pollock, etc.), and rosefish.

On March 15, 1938, the holdings of cured herring amounted to 13,200,000 pounds, or about 4,200,000 pounds less than on the same date a year ago, but about 2,500,000 pounds more than the 5-year average. On March 15, 1937, the holdings of cured herring were about 6,400,000 pounds more than on the same date in 1936 and 7,500,000 pounds more than the 5-year average as of that date.

In 1937, the landings of fish at the principal New England ports (Boston and Gloucester, Mass., and Portland, Maine) where the bulk of the catch of fish by New England vessels is landed, amounted to 388,000,000 pounds or about 26,300,000 pounds less than the landings at these ports in 1936. Decreases were recorded mainly in the landings of mackerel, whiting, pollock, and rosefish. Several of these species are the same as those which had large cold-storage holdings on March 15, 1937. Several other species recorded minor decreases. Increases were recorded mainly by cod, hake, cusk, and flounders. Among these species which had excess holdings as of March 15, 1938, over the 5-year average as of this date, there were cod, hake, and cusk.

In 1937 there were 168,200,000 pounds of fishery products frozen in the United States compared with freezings of 179,300,000 pounds in 1936 and a 5-year average of 130,000,000 pounds. In 1937, it is estimated that 183,000,000 pounds of frozen fish were withdrawn from cold storage as compared with 159,000,000 pounds in 1936 and a 5-year average of 125,700,000 pounds.

Canned fish.—Figures on the estimated holdings of canned fish were obtained by telegram and letter from various fishery associations. It is assumed the following figures thus obtained refer to stocks held by packers.

The holdings of canned tuna, in standard cases of 48 one-half pound cans to the case, as of March 15, 1938, were reported as 649,000 cases (15,600,000 pounds) compared with 247,000 cases (5,900,000 pounds) on the same date a year ago. No data are available as to the comparison of the holdings with a 5-year average.

The holdings of canned shrimp, in standard cases of 48 No. 1 cans to the case, as of March 15, 1938, amounted to 290,000 cases (4,400,000 pounds) compared with 60,000 cases (900,000 pounds) on the same date a year ago, and 118,000 cases (1,800,000 pounds) on March 15, 1936. There is no figure available as to the 5-year average as of March 15.

The holdings of canned oysters, in standard cases of 48 No. 1 cans to the case, were 122,000 cases (1,830,000 pounds) as of March 26, 1938, and 123,000 cases (1,850,000 pounds) as of April 1, 1937. No data are available as to the 5-year average.

It is understood the carry-over of canned alewife roe in the Chesapeake Bay area is considerably greater as of March 15 this year than the holdings as of March15 a year ago.

There was no surplus stock of canned California sardines, in 1-pound oval cans, as of March 26, 1938, and the same condition obtained in March 1937. Most of the pack of California sardines is put up in 1-pound oval cans.

The holdings of canned Maine sardines in cases containing an average of about 35 pounds of fish to the case, were 350,000 cases (12,250,000 pounds) as of March 15, 1938, and about 215,000 cases (7,500,000 pounds) as of the same date a year ago. Information was not available as to the amount of the 5-year average as of March 15.

No data are available on the situation with respect to canned mackerel in California. It is doubtful, however, whether there is any appreciable carry-over, since the pack in 1937 was considerably less than in 1936 or 1935.

Reports indicate that the holdings of canned salmon of all kinds, in standard cases of 48 1-pound cans to the case, as of February 28, 1938, amounted to 3,429,000 cases (165,000,000 pounds) compared with 1,337,000 cases (64,200,000 pounds) on February 28, 1937. According to an estimate obtained from the annual statistical number of the Pacific Fisherman, dated January 25, 1938, the 5-year average amounted to about 2,200,000 cases (105,600,000 pounds).

A summary of the above information indicates that the holdings of fishery products in the United States, on which data were obtained, approximated 260,000,000 pounds on March 15, 1938. This represents an excess of approximately 80 to 100 million pounds above normal holdings.

An act, Public No. 542, to authorize the purchase and distribution of products of the fishing industry was approved on May 25, 1938. It provides:

> That, out of any funds available to the Federal Surplus Commodities Corporation, not to exceed a sum equal to the difference between $1,000,000 and the sum expended by such Corporation in carrying out the provisions of the joint resolution entitled "Joint resolution to make funds available to carry out the provisions of existing law authorizing the purchase and distribution of products of the fishing industry," approved April 12, 1937, may be used by such Corporation for the purpose of diverting surplus fish (including shellfish) and the products thereof from the normal channels of trade and commerce by acquiring them and providing for their distribution through Federal, State, and private relief channels.

IMPROVED COLD-STORAGE STATISTICS

Progressive fish dealers in our markets are cognizant of the approximate volume of current supplies of fresh fish in their marketing area. The amount of fish in cold storage is not so apparent to them, yet such supplies, which have an important influence on the markets for fresh fish, are frequently many times the volume of fresh fish on hand at any given time. In order that interested parties may be apprised of the amount of fish in cold storage and quantities frozen, the Division, with the cooperation of the Cold Storage Section of the Bureau of Agricultural Economics, publishes monthly and annually bulletins which include this information.

In order that these reports may be of the greatest value to interested parties, this Division and the Bureau of Agricultural Economics make frequent revisions in the questionnaires submitted to cold-storage firms in order that new commodities or those of growing importance may be incorporated in the report. Thus, separate classifications have been added in recent years for fillets of various species as their importance increased in our markets; a new classification was added for rosefish, which is the product of a virtually new fishery; and another was added for swordfish, due to the increasing volume of imports of this commodity in the frozen state from Japan and subsequent storage in domestic warehouses.

New species classifications will be added on July 15, 1938, for scallops, a large volume of which also is imported from Japan; for shrimp, the domestic freezing of which has increased rapidly in recent years; and for sea crawfish or spiny lobster tails which have been imported in growing quantities, especially from South Africa.

Statistics of quantities of frozen fish moving in and out of cold storage and the amount of fish in cold storage are given daily and weekly, respectively, in the fishery news releases issued by the Division's market news offices in Boston, Mass., and New York, N. Y. This service is discussed in greater detail elsewhere in this section.

UNITED STATES FISHERIES OFF FOREIGN COUNTRIES

A study made during the year shows that about 14 percent of the value of the catch of the domestic fisheries is represented by products taken off foreign coasts. Specifically, the sources and classes of the more important of these products were as follows: Off Newfoundland and Nova Scotia, principally cod, haddock, and other groundfish, 151,000,000 pounds, valued at $4,600,000; off the west coasts of Latin American countries, mainly tuna and tunalike fishes, 121,000,000 pounds, valued at $5,900,000; off British Columbia, largely salmon and halibut, 16,000,000 pounds, valued at $1,000,000; off the east coast of Mexico (Campeche Bank), chiefly red snappers and groupers, 4,000,000 pounds, valued at $200,000; and off Australia, 1,508 whales (weight undetermined), from which were produced whale and sperm oil valued at $1,300,000. It will be observed that the total value of the fisheries off foreign coasts to domestic fishermen was about $13,000,000.

MIGRATORY FISH OF THE ATLANTIC AND GULF COASTS

Members of the Division's staff devoted a great deal of time during the year to the preparation of historical statistics and graphic charts of the catch of migratory fish and shellfish common to the Atlantic and Gulf coasts for use in the deliberations of the two eastern zones of the National Planning Council of Game and Commercial Fish Commissioners at their meeting with officials of this Bureau in Atlantic City, N. J., on February 6, 1937.

The data prepared in this Division covered the trends of the catch of 17 important migratory fish and shellfish. These data were supplemented by members of the staff of the Division of Scientific Inquiry to include discussions of the physical characteristics and habits of these species, and all the material was included in Special Memorandum No. 3239, entitled "Migratory Fish of the Atlantic and Gulf Coasts." The species covered by the report were cod, haddock, flounders, mackerel, sea herring, whiting, scup, sea bass, shad, alewives, croakers, squeteagues, Spanish mackerel, mullet, lobsters, crabs, and shrimp.

COMMERCIAL FISHERIES OF THE WORLD

On the basis of the most recent available data, the United States, including Alaska, ranks first in value of annual yield of fishery products among the countries of the world and is exceeded only by Japan in the volume of the yield. The catch by commercial fishermen of the United States, based principally on data for 1936, amounted to 4,800,000,000 pounds, valued at $93,000,000, while that of Japan, which is partly estimated, amounted to 6,600,000,000 pounds, valued at $87,000,000. Other countries whose annual commercial fisheries catch exceeded 1 billion pounds were Union of Soviet Socialist

Republics, England (including Scotland, Northern Ireland and Wales), China, Norway, Canada and Germany. The world's annual commercial catch of fishery commodities is about 30,000,000,000 pounds, valued at $730,000,000.

DOMESTIC MARKETS FOR LOBSTERS AND SPINY LOBSTERS

In view of the interest manifested in connection with the increasing imports of lobsters and spiny lobsters from foreign countries, the Division conducted a study of the trend in this trade.

Preliminary data, compiled by the Bureau of Foreign and Domestic Commerce, show that the imports of fresh and frozen products of both of these crustaceans during 1937 amounted to 14,700,000 pounds, and canned products 800,000 pounds, or a total of 15,500,000 pounds, exceeding the total imports in 1936 by 29 percent, and the average of the 10 years ending in 1936 by 43 percent. This increase is reflected entirely in the fresh and frozen products, there having been a downward trend in recent years in the imports of the canned commodity.

Large increases were recorded for imports of fresh and frozen lobsters and spiny lobsters during 1937. Specifically, the imports of fresh and frozen lobsters, which come almost entirely from Canada, increased from 8,800,000 pounds in 1936 to 10,700,000 pounds, or 21 percent, in 1937. This increase was most interesting in view of the fact that for several years prior to 1937 the total imports of this commodity had not reached 9,000,000 pounds. The imports of fresh and frozen spiny lobsters increased from 2,300,000 pounds in 1936 to 4,000,000 pounds in 1937, or 74 percent. Probably even of more interest in connection with the imports of fresh and frozen spiny lobsters is the fact that as late as 1932 imports amounted to only 763,000 pounds and during the decade prior to 1934 receipts from foreign countries had never exceeded 1,200,000 pounds.

The principal sources of our imports of spiny lobsters, in order of their importance, are Union of South Africa, British West Indies, Mexico and Cuba. Small quantities come from other tropical and subtropical countries.

Among the important countries which supply us with fresh and frozen spiny lobsters, the Union of South Africa has made most rapid strides in marketing her product in this country. Imports from that country increased from 1,020 pounds in 1934 to 130,000 pounds in 1935, 570,000 pounds in 1936, and 1,700,000 pounds in 1937. Our imports from the British West Indies have grown nearly as rapidly, increasing from 290,000 pounds in 1934 to 1,100,000 pounds in 1937. Cuba's shipments to this country increased from 38,000 pounds in 1934 to 207,000 pounds in 1937. Imports from Mexico have varied between 840,000 pounds and 940,000 pounds during the past 4 years.

The domestic catch of lobsters in recent years has varied from about 10,000,000 pounds to 14,000,000 pounds and that of spiny lobsters from 1,500,000 pounds to 1,900,000 pounds.

IMPORTATION OF COTTON FISH NETTING

The imports of cotton fish netting from foreign countries has been consistently increasing during the past 4 years, according to foreign trade statistics compiled by the Bureau of Foreign and Domestic

Commerce. In 1934, when the first import statistics of this commodity were published, our total receipts from foreign countries amounted to 338,000 pounds, valued at $124,000. Preliminary data show that in 1937 imports amounted to 846,000 pounds, valued at $255,000, representing increases of 150 percent in volume and 106 percent in value in the 4-year period.

Of especial interest with relation to the domestic market for foreign produced netting is the fact that while in each of the years for which data are available Japan contributed most of our imports of this commodity, her percentage of the total volume of imports increased from 63 percent in 1934 to 95 percent in 1937. Other countries from which cotton fish netting was received in this country in 1937 were Netherlands and United Kingdom, with very small quantities from Canada, Germany, France, Belgium, and Czechoslovakia.

INTERCHANGEABILITY OF USES OF OILS AND FATS

In publications of the Bureau and in previous annual reports of this Division the technical and economic aspects of the general interchangeability of the uses of all saponifiable oils and fats of animal and vegetable origin, and their effect on markets for and uses of fish oils, have been discussed in considerable detail. Because of the influence of this factor on many important American industries, it has become of increasing interest and importance during the past year. Particularly has it been a factor to be considered in the Government's program of reciprocal trade agreements. Consequently, technologists and economists of this Division spent considerable time during 1937 in assembling special data on this subject from the Bureau's files for officials of the State Department, the Federal Trade Commission, the Bureau of Customs of the Treasury Department, members of Congress, and representatives of trade associations.

ACTIVITIES OF THE FISHERY COMMITTEE OF THE NATIONAL ASSOCIATION OF MARKETING OFFICIALS

The Fishery Committee of the National Association of Marketing Officials was appointed in October 1936 at the association's convention in Nashville, Tenn., to deliberate on problems in connection with the marketing of fish which come before the association. While this is a very new committee, it already has shown much interest in fishery work and bears promise of most fruitful accomplishments in the future.

The members consist of J. H. Meek, Director, Division of Markets, Virginia, Chairman; Charles M. White, Chief, Division of Markets, Maine; and L. M. Rhodes, Commissioner of Markets, Florida. It will be observed that in each instance the members of the committee represent marketing agencies of States which are important in the commercial production of fish and shellfish.

The first meeting of this committee, following its appointment, was held in Washington, D. C., on April 26, 1937. On that occasion, as a means of developing general policies and plans for study, it discussed nine questions having important bearing in connection with the marketing of fish. Answers which reflected the opinions of the committee were then reported at the Nineteenth Annual Convention of the National Association of Marketing Officials, held in New York

City on December 18, 1937. The questions and answers as developed by the committee were as follows:

1. How can the State officials cooperate in the conduct of the Market News Service for fish, established July 1, 1937, by the United States Bureau of Fisheries?

It appears that the Market News service for fish in each State can be coordinated with the State Market News service for agricultural commodities.

2. How can the State officials aid cooperative marketing associations of fish producers?

Give them the same support that is given producers of agricultural commodities.

3. Should the Federal Government extend loans to Fishery Cooperatives?

In the same way that loans are extended to cooperatives handling agricultural commodities.

4. Should the State marketing or other State agencies take a greater interest in conducting economic studies of the marketing of fishery products?

Where there are economic studies relating to agricultural commodities, similar studies should be made relating to the marketing of fishery products.

5. Should the State marketing or other State agencies aid in the conduct of a fishery extension service to aid producers in marketing improved fishery products and to acquaint housewives with the food value of fishery products?

The same as agricultural commodities or other foods.

6. Should schools and colleges give consideration to the teaching of fishery economic and technical subjects—especially in those States where fishing is an important industry?

This seems essential if proper progress is made.

7. Should a Federal-State inspection service, of voluntary nature, be established for fishery products?

It is exceedingly important that a voluntary Federal-State inspection service for fishery products be established without delay.

8. Should consideration be given to the establishment of small inexpensive warehouses at important fish-production centers to hold, temporarily, surplus supplies of fresh fish pending more favorable marketing conditions?

This is a matter that should be given careful consideration and gradually developed to meet the needs of individual cases.

9. Should consideration be given the development of a fishery conservation plan along the line of the soil conservation subsidy?

This is needed to protect, conserve, and develop the industry.

The Chief of the Division addressed the New York Convention of the National Association of Marketing Officials on December 18, using as his subject "Outline of Fishery Market News Service." This address was received with considerable interest, especially in connection with the application of this new work of the Division in the various States represented by the delegates.

At the time of the convention of the Atlantic States Division of the National Association of Marketing Officials, held in Washington, D. C., in April 1938, members of the association's Fishery Committee, marketing officials from other coastal States, the writer and members of his staff, met to discuss policies of general cooperative activities in connection with the Division's new fishery market news service. It was pointed out by the Division's staff that funds were so limited for this new work that it would be impossible to communicate by telegraph on a daily basis the voluminous market information collected by the Division to State marketing offices for their dissemination to interested parties. Consequently, it was the concensus of the meeting that for the present these market news reports should be mailed to the State agencies and those having facilities would develop means for dissemination. It was further suggested that as the States developed suitable procedures for dissemination, adequate funds might be made available by the States to cover telegraph costs or to conduct some of the work of collection of data in their States, which would relieve the Division of portions of its expense in order that it could take over communication costs. The policy of mailing these market news reports to State marketing offices has been followed by the Division and some of the States have already indicated that they are conducting studies in connection with the marketing of fish in order that they may more intelligently disseminate this new type of information.

TRENDS OF THE BLUE CRAB INDUSTRY

An interesting geographical movement of the blue crab industry was revealed by a study of the official statistics of the products of this industry. As late as 1930 the States of Maryland and Virginia dominated the fishery for this crustacean, accounting for nearly 68,759,000 pounds. In that year the entire marine coastal area of the South Atlantic and Gulf States contributed only 7,024,000 pounds to the domestic catch. By 1936 the Chesapeake production had decreased to 43,670,000 pounds while that of the South Atlantic and Gulf States had increased to 29,831,000 pounds. The outstanding States contributing to this latter production in 1936 were Louisiana, 12,942,000 pounds; North Carolina, 6,591,000 pounds; and Florida, 3,194,000 pounds. With the development of this more southern crab fishery, fresh-cooked crab meat from the area is becoming a factor of increasing importance in the northern market.

For instance, the production of fresh-cooked crab meat in Louisiana in 1931 amounted to only 175,000 pounds, while in 1936 it had reached 1,035,000 pounds. During the same period the production of fresh-cooked crab meat in North Carolina increased from 188,000 pounds to 432,000 pounds, and in Florida from a practically nonexistent industry in 1931 to 316,000 pounds in 1936. This rapid growth of the fresh-cooked crab meat industry in the more southern States is contrasted with the decrease in the volume of fresh-cooked crab meat produced in the Chesapeake States from 5,794,000 pounds in 1931 to 3,581,000 pounds in 1936.

Of interest in connection with the domestic production of crab meat and its changing geographic trend are imports of foreign canned crab meat. According to preliminary data, imports of this commodity, which emanates principally from Japan, amounted to 11,157,000 pounds in 1937, which exceeds the imports in any year since 1931. The average imports for the 5 years prior to 1937 were 9,116,000 pounds.

THE ATLANTIC TUNA FISHERY

The fishery for tuna on the Atlantic coast in past years has been conducted almost entirely by sport fishermen; however, limited quantities have been taken incidentally in fisheries conducted primarily for other species. The interest in the sport fishery for this species has increased in recent years, and a considerable volume of the sportmen's catch frequently finds its way into our markets. In the capture of tuna, sport fishermen usually employ harpoons adapted from the swordfish fishery, hand lines, or troll lines. During the past year, several fares of tuna were reported landed at New England ports by vessels operating purse seines, which are one of the primary accepted gears used in the commercial fishery for tuna and tunalike fishes on the Pacific coast. Reports, of especial interest at this time, are that a modern purse seine vessel, the *Western Explorer*, has sailed from the Pacific coast through the Panama Canal to engage in a commercial fishery for tuna and mackerel in the New England fisheries and that the New England commercial fishery interests have already produced limited packs of canned tuna.

The commercial exploitation of this species on the Atlantic coast will be observed with great interest, especially in view of the rapid growth and present importance of the tuna industry in California where the Pacific coast industry is centered. It is most interesting to observe that the catch of tuna and tunalike fishes in California was of little consequence prior to about 1910, but today the value of the catch of these species ranks second only to salmon among all of the fisheries of the Pacific Coast States. The catch of tuna and tunalike fishes in 1936 amounting to 132,470,000 pounds, valued at $6,565,000 to the fishermen. Tuna also ranks among the most important fisheries of the world. Based upon the most recent available data, the world's annual catch amounted to 675,000,000 pounds, valued at about $24,000,000. This represents about 2 percent of the volume and 3 percent of the value of the catch of the world's fisheries for all species. Japan alone contributed 68 percent to the world's catch of tuna. Following in order were the United States with 21 percent; Spain, 4 percent; France, 3 percent; and Portugal, 1 percent. Other countries whose annual catch exceeded 1,000,000 pounds were Italy, Algeria, Tunisia, and Tripolitania.

NORTH PACIFIC HALIBUT FISHERY

During the past year George Roger Chute, assistant fishery economist, continued his economic study of the halibut fishery and industry of the North Pacific which was discussed in last year's report. This investigation covers a study of halibut vessel operation, transportation, warehousing, merchandizing practices, consumer attitude toward halibut, and a chronology of the fishery from its inception on the North Pacific.

GEOGRAPHICAL TRENDS IN THE PRODUCTION OF CANNED OYSTERS

The earliest oyster canning industry of any consequence in this country was centered on Chesapeake Bay. As late as 1921 Maryland was the principal producing State for canned and hermetically sealed oysters, contributing 153,000 standard cases to the United States total pack of 442,000 cases. More recently, the demand for shucked stock and oysters in the shell has so completely utilized the available supply in the Chesapeake area that the canning of this mollusk in this region has been almost abandoned.

As the pack decreased in the Chesapeake Bay, increasing quantities of oysters were canned on the Gulf coast to supply the important Middle Western market, and in 1936 the pack in Mississippi of 223,000 standard cases was more than half that of the entire Atlantic and Gulf coasts. However, a newer and most important source of canned oysters is the State of Washington, where the Japanese or Pacific oyster is canned. In 1931, the pack in Washington was less than 8,000 standard cases, but by 1936 the oyster canning industry in Washington had grown to the point where its pack amounted to 119,000 cases or 23 percent of the domestic production.

COMMERCIAL ASPECTS OF SEAWEED INDUSTRIES

Considerable interest is shown in the various seaweed industries of the United States as is evidenced by the numerous inquiries which the Bureau receives and by the relatively large number of business men interested in the possibilities of new ventures and developments in the utilization of seaweeds. During the past year, several large chemical manufacturers sent representatives to confer with the Division's technologists regarding the preparation and utilization of sodium alginate, a widely used product made from kelp. Much interest is also shown in kelp meal as a mineral supplement for livestock rations.

With special reference to eel grass, it is of interest that this seaweed once furnished a considerable industry in New Jersey, Virginia, Maryland, and elsewhere along the Atlantic coast. An investigation made by the Division during the year brought out the fact that the current domestic requirements of this product are now furnished almost entirely from foreign sources. With the depletion of domestic beds of eel grass, the manufacturing consumers, who found it especially suitable as an insulating material, considered it necessary to import supplies from Nova Scotia, but more recently the supply has become limited there. It has, consequently, become necessary to import a European seaweed, although it is shorter and in other ways less suitable than the native product.

MARKETS FOR PERIWINKLES (*LITTORINA* SP.)

A study was made during the year of the commercial aspects of the capture and marketing of periwinkles. Information obtained by the Division's agents indicates that periwinkles are rather abundant in New England and that a small quantity is shipped from Maine each year to wholesale markets in Boston and New York. They are packed for shipment in the shell with seaweed and ice in either boxes or barrels. Quantities of periwinkles also are taken in Rhode Island and are used there largely for bait, both in commercial and sport fishing, although some quantities are shipped from Rhode Island to the New York market. Shipments also arrive in Boston regularly by steamer from Nova Scotia. It is understood that the meat of this form is somewhat similar to that of the hard clam. A customary way of preparing it for food is by boiling in the shell, and the broth resulting therefrom constitutes the edible product which is most popular among people of Italian descent.

STATISTICAL INVESTIGATIONS

Fishery statistics are collected by the Bureau to serve two principal purposes—biological and economic. For this reason the Bureau must plan its statistical surveys to obtain comprehensive data for furnishing a complete and reliable picture of the condition and trend of the fisheries. The collection and compilation of the great mass of data necessary involves many problems. The fisheries are broad in scope, including over 160 varieties of aquatic products which enter into commercial production. These, many of which are migratory, are taken by a great variety of types of gear in areas along our seacoast and in our interior lakes and streams. If the biological aspect is to be served, complete annual statistics are needed on each of these phases in every section. If the economic aspect is to be served, statistics are needed not only on the phases listed above relative to the biological aspect, but also on the price structure, the processing function, and on marketing and distributing.

Statistics on these latter phases of the industry should be collected and published as soon as possible after the close of the business transactions in order to be of maximum value to the industry and others interested in the fisheries. However, because of limited funds and personnel it has not been possible to collect and publish these figures as currently as desired. For the same reason it has not been possible to collect statistics on the fisheries of the entire United States on an annual basis.

BIOLOGICAL ASPECT

The biologial aspect must consider two problems—the conservation and sustained supply of the resource, and the prediction of future trends or yields. Since the fisheries are usually prosecuted in areas not under private ownership, the problem of the conservation of these fisheries is of national concern. It, therefore, is important that close watch be kept of the condition of the various fisheries to detect depletion so that remedial measures can be promulgated timely and wisely. For this reason it is imperative that current statistical data be obtained on the yield of our fisheries.

These statistics then furnish the biologist with the background upon which to base his prediction of future trends and yields. This he does by coupling the statistical data with studies of the life history of the species. Difficulty is experienced in making these predictions because the supply (or population) of the species cannot be seen, as is the case with farm animals or crops. The more complete and more reliable the statistics on yield are, the better foundation the biologist has for conducting his studies. The Bureau, therefore, aims to obtain a complete picture of each individual fishery to further these biological studies.

ECONOMIC ASPECT

When the fishery has been conserved, and trends and yields of the fishery have been predicted, the problem still remains of supplying the fishery trade with the information so essential to the conduct of its business activities. In these days of increased competition the very existence of the fishery industry must depend upon reliable economic and statistical information. Such material has been especially valuable during the past few years, when it has been used in national planning. The Bureau, therefore, aims to make its statistical surveys so complete that the industry and the various governmental organizations may turn to it for reliable fishery statistics.

SURVEYS CONDUCTED

The statistical surveys during 1937 were conducted under the immediate supervision of Edward A. Power, assistant statistician, and the general direction of Fred F. Johnson, Assistant Chief of the Division. These surveys included the collection and dissemination of statistics of the commercial catch and its value, operating units, and employment in the fisheries. In addition, data were collected on employment and compensation of those engaged in the fisheries as well as products of fishery wholesale and manufacturing establishments.

As previously mentioned, limited funds made it impossible to cover all the fishing areas of the country during the past year for 1936. However, the following areas were surveyed: Chesapeake States, South Atlantic and Gulf States, Pacific Coast States, and Lake States. Statistics of the fisheries of Alaska also were collected by the Alaska Division of the Bureau. Summaries of the production in those sections which were not surveyed during the year are included for the most recent years available in part 2 of this report.

In addition to the above, statistics were collected on the following special phases: The landings of fish by American fishing vessels at the ports of Boston and Gloucester, Mass., Portland, Maine, and Seattle, Wash. (published monthly); catch of mackerel in the North Atlantic fishery; cold-storage holdings of frozen and cured fish and amount of fish frozen, which are furnished by the Bureau of Agricultural Economics (published monthly); production, consumption, and holdings of marine-animal oils of the United States and Alaska (published quarterly by the Bureau of the Census); production of canned fishery products and byproducts of the United States and Alaska; transactions on the sponge exchange at Tarpon Springs, Fla.; volume of fishery products handled at the Municipal Fish Wharf and Market, Washington, D. C.; and the volume of the United States foreign trade in fishery products, furnished by the Bureau of Foreign and Domestic Commerce.

The following statistical and marketing agents assisted in the collection and compilation of the statistical data: S. C. Denham, F. F. Dimick, W. H. Dumont, R. L. Greer, Wm. Hagen, Jr., V. E. Heffelfinger, H. J. Kumin, B. E. Lindgren, C. J. Robbins, V. J. Samson, C. B. Tendick, and J. L. Whitcomb.

The reader is especially referred to the section in the latter part of this report entitled "Statistical Survey Procedure," which gives in detail the methods employed in the collection of fishery statistics and other pertinent information.

FISHERY MARKET NEWS SERVICE

It is history that seasonal gluts and famines of fishery commodities in our markets have frequently resulted in disastrous financial losses to the fishery industries and much economic waste to the nation. Likewise, experience has shown that such conditions have been largely the result of inadequate market information available to producers, middlemen, and other interested parties. If there is to be economy in marketing transactions, buyers must know where they can purchase supplies of fish most economically and producers must be able to sell to their best advantage. As a means of developing the more orderly and economic marketing of fishery commodities, the Seventy-fifth Congress provided funds for the establishment in the Bureau of Fisheries of a market news service for the commercial fisheries.

Essentially, this new service constitutes an exchange of market information between the fishermen or producers in fishing areas and the middlemen in terminal markets, with the Bureau of Fisheries acting as the service agency; that is, the agency for collecting and disseminating the news.

This new work was inaugurated during the year under the immediate supervision of Andrew W. Anderson, marketing specialist, and the general direction of Fred F. Johnson, Assistant Chief of the Division. The early part of the fiscal year was devoted to exhaustive studies of methods used by other agencies in their administration of market news services and of conditions inherent in the fishery industry which might tend to influence the types of services having greatest application and value.

New York City was chosen for the first fisheries market news office due to its importance as a terminal market and consuming center for fishery commodities from virtually every State wherein a commercial fishery is prosecuted. It also is an outstanding port of entry and terminal market for similar commodities from the maritime countries of the world. The annual consumption of fresh and frozen fish and shellfish in the New York metropolitan area is estimated at 400 million pounds, or about one-third of the total consumption of such commodities in the United States. Consequently, it was evident that current information on supply, demand, and prices in this market was of paramount value to the efficient conduct of the industry everywhere.

In November 1937 the market news staff proceeded to New York City and concentrated its attention on the development of the service there. The first daily report was published on February 14, 1938. This report, which is released in mimeographed form each day except Sunday and holidays, includes the following data covering the daily activities on the New York market: Volume of arrivals of fishery commodities by all types of carriers, separately enumerated by commodity classification and State, Province, or country of origin, with separate statements of the arrivals by express, rail freight, fishing craft, coastwise vessels, and transoceanic steamships; prices in both the salt-water and fresh-water markets; and movements of fish and shellfish into and out of cold storage. It further includes information on landings and prices at other ports where agents of the Bureau are stationed, such as Portland, Maine; Boston, Gloucester, Provincetown, and New Bedford, Mass.; and Seattle, Wash. Data received by telegram from the Seattle agent relating to landings of halibut at Prince Rupert, B. C., also are included. William H. Dumont, fisheries statistical and marketing agent, is in charge of the New York market news office.

Due to the outstanding importance of Boston as a producing port for fishery commodities, it was chosen for the second market news reporting office and the establishment of the service was started there early in 1938. The preliminary work in Boston was quickly completed and daily reports were issued beginning on May 26. The service at Boston is very similar to that in New York City. Detailed data are included in the daily reports on the landings of fish and shellfish at the Boston Fish Pier. These figures are separately enumerated by types of craft, fishing areas, and species. As in New York City, data also are included in these daily releases on prices, cold-storage movements, and arrivals at Boston by express, rail freight, fishing craft, and coastwise as well as transoceanic steamships. Data also are included on the landings and prices at other New England ports, at New York City, and at West coast ports. The Boston service further includes advance reports on certain fishery commodities en route to Boston, such as vessels with fares of mackerel passing through Cape Cod Canal, fish shipped by transporting vessels from Canadian ports, and express shipments clearing certain towns on the United-States-Canadian border in Maine. B. E. Lindgren, fisheries statistical and marketing agent, is in charge of the fishery market news service in Boston.

Studies are now in progress preliminary to the establishment of a market news reporting office in Seattle, Wash., and other offices will be established as time and facilities permit. Agents also will be stationed at other producing points to submit current market news data to the reporting offices.

The popularity of the fisheries market news service with members of the fishery industry and others has been demonstrated by the many commendatory letters received by the Bureau about the work from fishery associations, wholesale fish dealers, cold-storage and freezing companies, transportation agencies, financing companies, Federal, State and Canadian fishery agencies, fishermen, and reporters and editors of newspapers and periodicals.

It will be the Division's aim to continue a sound market news service and to incorporate in this service as much useful current data from important producing and consuming centers as can be accurately collected with available facilities. Furthermore, every effort will be exerted toward speed in dissemination.

COOPERATIVE MARKETING

The work of the cooperative marketing unit of the Division, which is charged with handling matters relative to the administration of Public, No. 464, an act passed by the Seventy-third Congress, second session, authorizing associations of producers of aquatic products, was continued during the year under the direction of L. C. Salter, fishery economist.

Since its establishment in 1935, the cooperative marketing unit has been conducting investigations to determine as far as possible the cooperative status of fishery organizations in the United States and the nature and extent of their activities and has given personal assistance to groups of fishermen contemplating the formation of cooperative associations. As part of this program, a survey of fishery associations on the Pacific coast was begun in 1936. During 1937 this was extended to include the fishing areas of the Atlantic and Gulf Coast States. Along with this survey, as a companion study, the unit has continued its investigation relating to the financing of fishing enterprises throughout the major fish-producing areas of the country.

It has been found that, among fishermen and associations visited, there is widespread interest in the possibilities of advancing cooperative marketing activities. This interest has been evidenced further by many requests for the Bureau to give aid of an advisory character concerning operations and management, and financing problems. Wherever possible, such assistance has been supplied through correspondence, informative literature, or personal contact.

During the past year a form letter was sent to State marketing agencies of commercial fish-producing States, to learn the extent to which these agencies were engaged in fishery cooperative marketing work. Replies revealed that very little work of this nature was being done. It was indicated in some instances, however, that the organic law or subsequent acts of State legislatures provide that State marketing agencies might conduct work of this character, but that the lack of it in many cases had been due to failure of fishermen and their associations to request this type of assistance. Statements were made to the effect that if fishermen or their associations desired such assistance and suitable appropriations were made by the State, work in behalf of fishery cooperative marketing could be conducted readily.

At the request of the Director of the Extension Department of St. Francis Xavier University, Antigonish, Nova Scotia, the Bureau's cooperative marketing specialist attended the Fifteenth Annual Rural and Industrial Conference held at the university in August 1937 and delivered an address on fishery cooperative marketing in the United States. This conference was devoted to the discussion of social and economic phases of rural and industrial life of the Province of Nova Scotia, in which fishermen and fishery cooperative associations have played an important part. Following the conference, the Bureau's representative was given an excellent opportunity to study cooperative activity among the fisher-folk of Nova Scotia, and the adult education and extension work of the university in connection with its efforts to teach fishermen the principles of cooperative marketing and to help them organize and operate cooperative associations. At a specially arranged meeting, attended by the Bureau's representative, details of the history and development of the cooperative work in Nova Scotia were discussed, as well as present cooperative marketing activities and progress being made. At the close of the conference, arrangements were made for a group of the conference members to visit various fishing communities in Nova Scotia in which one or more cooperative projects were being conducted.

As a result of the address on fishery cooperative marketing in the United States delivered at St. Francis Xavier University, Rev. E. A. Kerr of St. Michael's Parish, Ridge, Md., who attended the Annual Rural and Industrial Conference, requested the Bureau's assistance in connection with proposed cooperative activities contemplated by a group of pound-net and oyster fishermen of his parish. In compliance with this request, three representatives of the Bureau attended a meeting of the fishermen at Ridge, on October 14, 1937, for the purpose of discussing with them plans which they had been considering for the organization of an association for the cooperative marketing of their fishery products. Our representatives outlined the work of the Bureau relating to fishery cooperative marketing activities; discussed the principles, functions, and operations of fishery cooperative associations; and offered advice and suggestions to enable this group of fishermen to become thoroughly familiar with the functions of cooperation before attempting to solve their local problems by this method. Later, one of the Bureau's technologists assisted the group in solving certain fishery processing problems.

Direct assistance also was given to a group of fishermen requesting assistance in the formation of a cooperative plan for the selling of shrimp at Thunderbolt, Ga. The Bureau's cooperative marketing specialist met with the group and later drew up a working agreement enabling these fishermen to operate cooperatively to sell their shrimp in an unincorporated manner until such time as sufficient funds would become available to properly organize and operate a cooperative marketing association.

At the meeting of members of the fishing industry at Atlantic City, N. J., in February 1937, members of the Bureau led a round-table discussion in which the work of the Bureau pertaining to fishery cooperative marketing was explained. Information also was supplied regarding what had been done among fishermen themselves in the United States in the way of cooperative activity.

Aid and assistance also was given to the Southern New England Fishermen's Association, Mystic, Conn., in June 1937, as to methods for improving markets for fishery produce.

In order to correlate the Bureau's cooperative marketing work with that of other agencies, our cooperative marketing specialist attended the meeting of the American Institute of Cooperation, at Ames, Iowa, in June, where he participated in round-table conferences concerning cooperative marketing and purchasing. Considerable interest was shown by this group in the work of the Bureau relative to the cooperative marketing of fishery products and mutual plans were developed for current exchange of information on cooperative enterprise.

While in Iowa, our cooperative marketing specialist conferred with representatives of the Iowa Conservation Department at their request, concerning the possibility of developing a plan for the cooperative marketing of carp and buffalofish taken in Iowa and adjoining States. These fishes are not highly prized in these States and, in an effort to rid their waters of them, the States have various contractual arrangements with the commercial fishermen. It was believed that if some type of cooperative marketing arrangement could be developed among those States that greater revenue could be derived from the sale of these fish.

In the spring of 1937 two bills (H. R. 6039 and H. R. 7309) were introduced into the United States House of Representatives, by Congressman S. O. Bland of Virginia, proposing the establishment of a fishery credit corporation for lending funds to fishermen's associations organized and operated in accordance with Public, No. 464, mentioned previously, and for the establishment of administrative agencies in connection therewith. Hearings on these bills were held on June 29 and July 16, 1937, before the Committee on Merchant Marine and Fisheries of the House of Representatives but at this writing the Congress has not yet acted on these bills.

The proceedings of these hearings have been published under the title "Fishery Credit Act, Hearings before the Committee on Merchant Marine and Fisheries, House of Representatives, Seventy-fifth Congress, First Session, on H. R. 6039 and H. R. 7309."

On December 31, 1937, Mr. Salter resigned from the Bureau to accept employment as a cooperative specialist with the Tennessee Valley Authority, Knoxville, Tenn.

TECHNOLOGICAL INVESTIGATIONS

Improvement of quality and increase in economic value of the products of our fishery industries constitute the goal toward which our technological investigations are directed and are constantly striving. The most modern tools of the various applied sciences are used in accomplishing these practical ends. This is conservation of a natural resource in its broadest and most effective meaning. For instance, it is comparable to the efforts of agricultural science in aiding farmers to make the most complete and valuable use of corn and cornstalks. In recent years much has been heard of a movement among scientists, known as the farm chemurgic. In a practical sense, this means teaching the farmer to direct the surplus products of his land, after food requirements have been met, to the factory as a source of supply of raw materials in the manufacture of industrial or nonfood products. In other words, the purpose of this movement is to bring agriculture and industry closer together and to make the farm a source for industrial raw materials. Likewise, fishery technology is serving not only to make more types of food available from the sea, but also is serving as the "sea chemurgic" to the "fishers of the sea," in teaching them to make valuable industrial commodities from fishery products, after primary food requirements have been met.

While our fishery technological studies have been of great value to the domestic fishery industries in increasing productive capacity and creating new wealth for the American people, their value to our domestic economy does not end there, for other American industries also are making great use of the results of our technological work. Many of these latter industries are consumers of raw materials produced by American fisheries and they follow our investigations very closely. At times, some have sent their technicians to our field and Washington laboratories where they have conferred with our technologists to keep abreast of the latest research developments. Following these contacts, some of these industries have applied the results of our researches to the manufacture of their products.

For instance, in 1919, the Bureau of Fisheries pioneered in the development in this country of quick-freezing methods in the preservation of a food product and has continued researches in the frozen food field ever since. Other food industries have been quick to grasp the significance of this work and now the quick-freezing of fruits, vegetables, and meats has become one of our major industries.

In another instance, the Bureau pioneered in searches for new sources of vitamins A and D and found that the oil from the livers of many species of fish are potent in these vitamins. Heretofore, only the livers of cod were thought to be useful for this purpose. The drug industry took advantage of this work and now produces many thousands of gallons of oil high in vitamins A and D from fish livers and fish viscera which formerly were discarded by the fishermen at sea. Likewise, our researches on the value of fish meal for feeding domestic animals have been of great value to the feed industry of this country.

A few years ago, the Division's technologists developed a smokehouse for curing fish which automatically controlled the temperature, humidity, and volume of smoke. In semicommercial operation, this produced a product which had a pleasing appearance and taste and one which was a considerable improvement over the usual smoked fish product prepared by "rule-of-thumb" methods. Many members of the fishery industry made use of this work and are now producing a better smoked fish product than heretofore. It has recently come to the attention of the Bureau that the results of this work are also being applied to the commercial smoking of meat products by the meat packing industry.

Our technologists are now conducting a cooperative investigation with a company interested in the temporary chemical preservation of fishery products until they can be concentrated at a central point for conversion into useful byproducts. The results of this work have been applied commercially to the preservation of various types of fish and fish products. In addition, the renderers of byproducts of the meat industry have taken advantage of this development to their economic benefit.

Several years ago, researches of the Bureau revealed that fishery products as a class are higher in iodine than most foods from land sources. As is well known, iodine is a mineral essential in the diet of man and animals. The fishery industry made considerable use of this knowledge attained by the Bureau to promote the increased consumption of aquatic foods. In addition, the salt industry utilized the scientific facts and now markets a product known as iodized table salt which is the usual salt to which a small amount of iodine has been added.

LABORATORIES

During 1937, the Division carried on its technological studies under the direction of Dr. J. R. Manning, senior technologist, at its laboratories located in Washington, D. C., College Park, Md., and Seattle, Wash. In addition, certain cooperative investigations were conducted by members of our technological staff in the laboratories of the University of Maryland, and Maryland State Agricultural Experiment Station at College Park, Md.; the University of Washington, Seattle, Wash.; and Washington State College, Pullman, Wash.

Construction of the small technological laboratory building in Seattle, Wash., referred to in last year's report, was completed. Heat, light, power, and plumbing facilities were installed and a greater portion of the Bureau's experimental equipment was set up in readiness for operation. Actual experimental work was undertaken shortly after January 1, 1938.

The building was designed to provide facilities for setting up experimental machinery and equipment necessary in investigating methods for preserving and utilizing fishery products. It is of frame construction, 26 feet wide and 40 feet long. The walls of wood are 11 feet high and are planned for future brick veneer. The concrete floor slopes to a center drain. The standard equipment includes a 10-horsepower, high-pressure, oil-fired steam boiler, a steam-jacketed dryer, vacuum pump and condenser, an hydraulic press, a filter press, three centrifugal separators, a hammer mill, an attrition mill, an iron mill, a Wiley mill, a bone cutter, a refrigeration machine and cold storage cabinet, and miscellaneous jacketed cooking kettles. These are further supplemented by recording instruments and miscellaneous experimental equipment developed in the course of investigative work. The laboratory has both hot and cold water, a large wash sink, complete lavatory fixtures, and will be heated by an extended surface steam heater. All motive power is by electric motor, either direct or by line shaft, and adequate light, power, water, and gas outlets are provided around the laboratory. This building is a valuable addition to the Bureau's facilities for carrying on technological investigations and will permit semicommercial work heretofore impossible at the Seattle laboratory.

During 1937 our technological investigations in general were delayed or suffered from lack of suitable and sufficient space. Particularly was this true at our technological laboratories at College Park, Md.

PRESERVATION OF FISHERY PRODUCTS FOR FOOD

Studies during 1937 in the preservation of fishery products for food were conducted in the Bureau's technological laboratories at College Park, Md., Washington, D. C., and Seattle, Wash. The investigations in the College Park Laboratory were carried on under the supervision of James M. Lemon, technologist in charge, assisted by W. T. Conn, assistant technologist; S. R. Pottinger, junior technologist; M. E. Stansby, junior chemist; Joseph F. Puncochar, junior bacteriologist; William B. Lanham, Jr., junior chemist; Willis H. Baldwin, Hillman C. Harris, L. F. Ortenzio and C. E. Swift, research associates and student assistants; in the Seattle laboratory under the supervision of Roger W. Harrison, technologist in charge, assisted by Robert E. Silver, junior chemist; Charles Butler, William Clegg, Louis Simenson, Marie Sater, and Rhea Waterberry, chemists, assigned to our laboratory by the Works Progress Administration; and Leslie Lowen, Neil Nellis, and Robert Rucker, research associates and student assistants; and in the Washington laboratory by Norman D. Jarvis, assistant technologist in charge of experimental canning investigations, and Agnes I. Webster, fish cookery expert.

ELECTROMETRIC TESTS FOR DETERMINING THE FRESHNESS OF FISH

Several years ago an electrometric method or test for determining the relative freshness or degree of quality of fresh haddock was developed by M. E. Stansby and J. M. Lemon of our technological staff. During the ensuing years these men have been engaged in perfecting this method and in extending its application to the determination of the quality of fresh cod and pollock. In the meantime, as stated in the 1936 Division report, considerable interest was aroused by the industry in the possible commercial application of this test. In the original development of the method, the apparatus was designed for the testing of not more than four samples, simultaneously. This was one of the difficulties which was encountered when attempts were made by one of the large fishery producers in 1936 to use the test in commercial practice. At the request of this firm, and with its cooperation, the Bureau detailed M. E. Stansby to work with technologists of the firm for the purpose of designing an apparatus which could be used commercially and which would enable an operator to make a greater number of tests simultaneously. Mr. Stansby was engaged in this cooperative detail from July 15, 1937, until the end of the year and, as a result of this work, designed equipment which can make determinations upon 10 samples of fish at one time. Thus, it is possible for the firm to make very rapid tests for the freshness of fish purchased, by means of this new apparatus, without delaying their packing activities. Ordinarily, 15 to 30 minutes were required for testing one sample. However, with the new apparatus, it is now possible for the operator to run the 10 samples in the same length of time and the test is now rapid enough to be used in the ordinary commercial control laboratory. The design of the apparatus is also quite simple and it is easy to manipulate. After a little practice an operator, without advanced scientific training, can obtain excellent results. At the present time this equipment is being used by the firm, in whose laboratories it was developed on a commercial basis, for the selection of fish which are to be used in packs of frozen products.

STUDIES OF RANCIDITY IN FISH

For the past several years we have studied the causes of rancidity in various fishery products and have worked on methods for its prevention which might have promise of commercial application. This work has been done in cooperation with the Musher Foundation, Inc., New York City, by research associates employed by the Foundation and stationed in our laboratories both at College Park, Md., and Seattle, Wash.

Several phases of this work which were conducted at our laboratories at College Park and which were described in last year's report, were completed and the results published in the following reports: "Oat Flour as an Anti-oxidant in the Salt Mackerel Industry," by J. M. Lemon, M. E. Stansby, and C. E. Swift, Food, vol. 6, No. 71, pages 441–443, August 1937, 33 Tothill St., Westminster, London, S. W. 1, and Food Industries, vol. 9, No. 10, October 1937, McGraw Hill Publishing Co., New York, N. Y.

Other phases of this work were conducted in our Seattle laboratory where studies were made by the research associate of the Foundation of the effectiveness of cereal flours and cereal flour extracts in preventing the development of rancidity and the destruction of vitamin A in fish oils and fish liver oils, and the usefulness of these materials in preventing deterioration in other preserved fishery products. As a result of this work, it was found that cereal flours and their extracts have a mild antioxidant action on these products. In the case of fish oils and fish liver oils the effect was due to retarding the rate of oxidation rather than preventing it for any extended period. In the case of the vitamin active oils, vitamin A destruction corresponded with autocatalytic oxidation; therefore, the cereal flours did not materially increase the period before destruction began but decreased the rate of destruction. On the basis of organoleptic examination, treated oils appeared to be less rancid than untreated oils with a similar degree of oxidation as shown by the peroxide test.

When cereal flours were dusted on dressed salmon or sardines just prior to canning, or the extracts were sprayed on the fish or in the can, the canned products in general had a less pronounced odor and flavor during early storage but the advantage seemed to disappear soon.

The addition of cereal flours to brine used in the preparation of mild cured and kippered salmon did not show any detectable improvement in the quality of the product. On the other hand, canned Maine sardines prepared from fish treated with salt and oat flour in the hold of the boat during transit to the cannery showed some improvement over those to which salt alone had been added.

Spraying cereal extract on the surface of spiced herring resulted in the treated samples having a definitely better odor and flavor than the untreated samples after extended storage.

Studies on these and other aspects of the possible utility of the cereal flours is being continued by the research associates of the Musher Foundation.

STUDIES OF LACTIC ACID AS A POSSIBLE INDEX OF DECOMPOSITION IN FROZEN FISH

In order to simplify understanding of the problem, decomposition of fish might be classified into three general types. These are: (1) Enzymatic decomposition, or the action of enzymes, already present in the fish when alive, and which begin to break down the more complex compounds in the fish into simpler substances; (2) the deterioration or oxidation of the oil in the fish; and (3) bacterial decomposition.

When fish are frozen the bacterial action is arrested, since the bacteria are almost entirely killed at freezing temperatures. However, the other two types of decomposition in fish proceed but at a much slower rate than if the fish were not frozen nor held at low temperatures. The problem of rancidity or oxidation in fish is discussed elsewhere in this report. Therefore, we are concerned here with enzymatic decomposition. It is known that one of the indications of the action of enzymes in fish, immediately after death, is an increase in the formation of lactic acid. Since lactic acid is a definite chemical compound and its quantities in fish can be accurately determined by analysis, our technologists decided that the amounts of lactic acid formed in fish at various stages of decomposition might be used as a reliable index of the progress, rate, or stage of decomposition or, to put it another way, it might be an accurate means of measuring the relative freshness of fish, somewhat similar to the use of the electrometric method for determining the relative freshness of fish, discussed elsewhere in this report.

Therefore, during the summer of 1937, Willis H. Baldwin, graduate student assistant, was temporarily assigned to duty at the Maryland State Marine Biological Station at Solomons Island, Md., for the purpose of procuring and freezing samples of fish to be used in a study of this project. It was necessary for the investigator to obtain these fish himself so that he would have a complete history and control of the fish from the time they were taken from the water until they had passed through the progressive stages of chemical changes accompanying decomposition to a point where they would be no longer fit for use as food. In some instances, fish were actually taken from the water alive and killed or were frozen, while alive, and the amounts of lactic acid determined in each sample immediately after freezing. These samples were then brought to our technological laboratory at College

Park where they were stored in a low temperature refrigerator and analyzed for lactic acid content at regular intervals during the entire period of storage.

Since this work was not begun until late in 1937, we are not in a position to report any definite conclusions at this time. However, it was found that fish which were frozen alive, and others which were frozen in rigor, had a lower lactic acid content after storage of 4 months than fish packed fresh in ice for 3 days, but still in rigor and then frozen and held in storage for 4 months. Still higher percentages of lactic acid were shown in fish, not kept in ice, but frozen 3 days after death and on which determinations were made after 4 months of storage. It is possible that this study may not only yield another reliable index of decomposition but it may also reveal data which might enable our technologists to develop means of preventing or arresting enzymatic decomposition in fish.

IDENTIFICATION OF CANNED SALMON

The utility of a test for identifying canned salmon according to species was discussed in last year's report, and certain data were given which suggested the possibility of identification on the basis of the refractive index and color of the free oil in the can. During the past year our technologists examined oil samples from approximately 1,000 cans of salmon which were selected as representative of the 1936 season's pack, and found that there was considerable overlapping of the refractive index and color of the oil between the species. This, therefore, precludes the use of this test as an infallible means of identifying canned salmon.

CHANGES IN THE COMPOSITION OF PINK SALMON (*Oncorhynchus gorbuscha*)

In 1936 the Bureau published Investigational Report No. 33 entitled, "Physical and Chemical Changes in the Pink Salmon During the Spawning Migration," by Frederick A. Davidson, Division of Scientific Inquiry of the Bureau, and O. Eugene Shostrom, National Canners Association, Seattle, Wash. Since the pink salmon is one of our most important species of food fish, used almost entirely for canning, our Seattle technological laboratory at the beginning of the salmon season in 1937, and with the assistance of chemically trained personnel supplied by the Works Progress Administration, undertook a further study of individual fish of each sex as to gross composition, such as percentage of fat, ash, protein, moisture, water soluble nitrogen compounds, heat coagulable nitrogen compounds, free amino nitrogen, copper precipitable nitrogen, and phosphotungstic acid precipitable nitrogen. These analyses for gross composition indicate that while the fat content decreases and moisture content increases, during the course of the spawning season, there is very little if any apparent change in the composition or nature of the protein until the fish reach fresh water. In addition, purified protein material was prepared from the samples and reserved for subsequent quantitative measurement of certain essential amino acids.

CANNING AQUATIC PRODUCTS

During 1937 the series of experimental packs in the study of home canning methods was completed, and packs previously prepared were examined to gather data for a final report on improved methods for home or noncommercial canning. Data obtained during the year indicated that such fresh-water varieties as the carp, hitherto regarded as unsuitable for canning, could be prepared as a canned product of good quality, by home or noncommercial canners, thereby opening the door for wider utilization and conservation of fishery resources in the interior of the country, as well as increasing and diversifying the supply of food for home consumption.

Studies on the development of a commercial method for canning the blue crab of the Atlantic and Gulf coasts were continued with series of experimental packs of crab creole, crab gumbo, crab soup (Norfolk style), crab cakes, and crab sandwich paste.

In addition, many experiments were made to prevent discoloration of crab meat packed without other food ingredients. Considerable progress has been made toward the solution of this latter problem, as packs have been prepared which show no discoloration after six months of storage and have the color and flavor of fresh crab meat. The method is now being tested on a large commercial scale at various fish-canning plants along the Atlantic and Gulf coasts and the results of this work will be reported upon later.

In addition to the above mentioned products, further experimental packs prepared during 1937 have included fish chowder, clam chowder, scallops, whiting, California pilchard (sardine), Dungeness crab, Maine sardine, and herring (alewife) roe. The results are not yet available.

The survey of present and modern commercial methods for the canning of fish and seafoods was continued. Field work was carried out in the Chesapeake and New England areas. Data were gathered on commercial methods of canning alewives and alewife roe, finnan haddie, fish balls, fish cakes, fish flakes, Atlantic mackerel, sturgeon, shad, soft clams, mussels, crab, lobster, Maine sardines, pet food, clam chowder, fish chowder, fish roe, anchovies, smoked herring, spiced herring, smoked salmon, salmon caviar, and salmon bait eggs.

At the request of the State of Virginia, our technologist in charge of experimental canning was detailed to make a study of the herring roe canning industry in that State, with a view to improving methods, and to draw up tentative grades and regulations for a State voluntary inspection system of canned herring roe. As a result of this work, a State inspection system is being set up for this purpose adopting recommendations made in this study.

BACTERIOLOGICAL STUDIES

Our bacteriological investigations during the past year were carried on by Joseph F. Puncochar, junior bacteriologist; Harold E. Crowther, research associate; and Louis F. Ortenzio, graduate student assistant. Most of our bacteriological problems are closely integrated phases of specific problems or projects in the preservation of fishery products for food or the preservation of fishery byproducts, or closely coordinated studies of spoilage problems. Thus, bacteriological examinations are made of the experimental packs of canned fishery products to determine which processes produced sterility; bacterial counts are made on samples used in our studies on the development of indices of relative freshness or of decomposition; the use of ultraviolet rays in killing bacteria; determinations of the value of various chemical preservatives in preventing or retarding bacterial spoilage in fishery byproducts; and other miscellaneous bacterial control problems.

STUDIES OF ULTRAVIOLET RAYS IN KILLING BACTERIA

Since the reduction of the presence of bacteria in fish is essential to the preservation of fish, any device or method which can be found to bring about this accomplishment is vitally important to the industry and to the consumer. According to information which we have received, resulting from studies made on other food products, the use of ultraviolet light rays has been beneficial in reducing bacteria in milk, meats, bread, etc., and in improving the keeping qualities of these foods. Therefore, late in 1937, our bacteriologists began a study of the effect of these ultraviolet rays in reducing the bacterial count of various fishery products. As a result, we have found that the rays will kill marine bacteria and we hope to work out a practical and commercially feasible application of this method in the treatment of fishery products.

STUDIES IN THE HANDLING OF FRESH OYSTERS

Late in 1937, at the request of the Oyster Institute of North America, and in cooperation with that organization, a program for studying the handling of fresh oysters was undertaken. Louis F. Ortenzio, a member of the Division's technological staff, was assigned to the study of this problem. While this problem has certain chemical aspects, the major portion of the investigation is a bacteriological one. The work has not progressed to a point where recommendations in the improved handling of oysters can be made.

Briefly, the following experimental procedure is being used. Bacterial counts to measure the rate of bacteriological decomposition and determinations of the pH to measure the rate of chemical decomposition are being made on commercial shipments of oysters. This may lead to the development of a test for determining the relative freshness of oysters as well as to the development of methods for preventing or retarding spoilage of fresh and frozen oysters.

PHARMACOLOGICAL STUDIES

The role of minerals in foods and in feedstuffs for farm animals is becoming of increasing importance. Not only have certain minerals been found to be essential in nutrition, but there is need for a better understanding of other physiological effects they may have on the animal organism. With this in mind, the Bureau has continued its studies on certain minerals, naturally occurring in fishery products.

THE FLUORINE CONTENT OF FISHERY PRODUCTS

The fluorine content of foods presents a major problem in nutrition since the discovery that fluorine is responsible for mottled enamel of teeth. Therefore, during 1937, our technological staff undertook a study of the fluorine content of various fishery products and the effect of this fluorine, as it naturally occurs in some fishery products, in the metabolism of the animal organism. A series of so-called "balance" experiments were started, in our College Park laboratories, to determine the intake and excretion of fluorine in rats fed a diet of canned fish, containing about 8 parts per million of fluorine. Preliminary work on this problem indicates that there were no apparent toxic symptoms in the experimental animals after a test period of 12 weeks, and the consumption of fish was very statisfactory.

MANUFACTURE OF FISHERY BYPRODUCTS

The utilization of waste for the manufacture of byproducts is becoming of increasing importance, probably more so in the fishery industries, than in other food industries. It has been estimated that the value of fishery byproducts represents about 15 percent of the total value of all fishery products in the United States. When we study the diversification of these byproducts and their uses, they loom into even greater economic importance than their relative volume would seem to indicate. Fishery byproducts furnish raw materials or finished products for such highly important consuming industries as the drug, paint and varnish, soap, and feed industries. Accordingly, our technologists are giving increasing attention to the conversion of fish waste and other waste materials resulting from our fishery harvest into useful byproducts. During 1937, investigations dealing with the preservation of fishery byproducts were carried on in the Seattle technological laboratory under the supervision of Roger W. Harrison, technologist in charge, with the assistance of Andrew W. Anderson, assistant technologist (subsequently transferred to the market news service); Robert E. Silver, junior chemist; and Leslie Lowen, Neil Nellis, and Robert Rucker, research associates and student assistants; and in our College Park technological laboratory under the supervision of of James M. Lemon, technologist in charge, with the assistance of S. R. Pottinger, junior technologist; M. E. Stansby, junior chemist; Joseph F. Puncochar, junior bacteriologist; and Harold E. Crowther, R. H. Flowers, and C. E. Swift, research associates and student assistants.

UTILIZATION OF SALMON-CANNERY TRIMMINGS

In previous reports we have discussed the economic importance of the waste accumulated during the preparation of salmon for canning and the progress being made in the Bureau's studies on methods of utilization. During 1937, we had hoped to extend this work to pilot plant operations but due to unforeseen delays in getting the new technological laboratory building in Seattle, Wash., in readiness such studies were necessarily postponed and the investigation was confined to work permitted by the facilities of the chemical laboratories.

In view of this, a rather extensive survey was made on the chemical and physical properties of the oil obtainable from the various components of salmon waste and from the total waste of the five species of salmon from the principal fishing areas of this fish in the United States and Alaska. As indicated in our last report, it is possible to obtain oils having quite widely varying properties. The chemical studies on these samples were continued during the past year for the purpose of obtaining further data on their composition. The studies included the estimation of the percentages of saturated and unsaturated fatty acids and their mean molecular weights. These data are being included with the former data in report form.

In certain localities in Alaska the problem of utilizing salmon cannery trimmings is primarily one of how to overcome the seemingly prohibitive situation of having a season of operation of not more than 30 days during the year. One means of accomplishing this would be to broaden the scope of operations to include other types of fish which are available over a longer period of time which would permit a byproducts plant to operate over a longer season. In this connection our technologists began studies on the utility of other fishery materials which might be available for supplementing the supply of salmon cannery waste. An examination of samples of atkafish, said to be abundant in the Bristol Bay area, indicated these fish would yield at least 30 gallons of oil per ton of raw material and the resultant meal would contain over 70 percent protein. Except for color, the properties of atkafish oil were quite similar to those for red salmon oil. Greater attention might also be given to the utility of these fish as a source of human food.

Since beginning our investigations on the utilization of salmon cannery waste, definite progress has been made by the salmon-canning industry toward more complete use of the waste. A certain degree of this progress can be attributed to the advisory service being supplied by the Bureau's technologists on the basis of their investigational work.

FISH-LIVER OIL STUDIES

Methods of extraction.—Because of the sustained interest in fish livers as sources of highly potent vitamin active oils, the Bureau has continued to give considerable attention to developing methods for the more economical extraction of oil from these livers.

In last year's report reference was made to the development of a simple method of oil extraction which had been demonstrated to be applicable to halibut and "lingcod" livers. This involved a special mechanical disintegration of the liver, conversion of the liver tissue into a soluble and nonheat coagulable condition, and separation of the oil from the solution by centrifuging. An application for a public service patent on the method is on file at the United States Patent Office.

During the past year the above method of extraction was found to give satisfactory results with swordfish livers but was not directly applicable with uniform success to domestic tuna livers. This is because the tuna livers are normally of very low oil content and the active lipolytic action in the liver during the period required to bring the catch to port results in there being only a very small quantity of neutral glyceride oil available for recovery. This difficulty, however, can be overcome by mixing a quantity of foreign oil with the livers prior to subjecting them to the extraction process. Experiments on salmon livers and salmon waste during 1933 had demonstrated the vitamin solvent action of fish oil and the experiments on tuna livers during the past year demonstrated the increased efficiency when using the foreign oil in connection with the process developed for halibut livers. The method is applicable for producing oils approaching the normal concentration of the oil in the liver or it may be used in fortifying the foreign oil to any desired degree below this potency.

Vitamin testing methods.—For a number of years the antimony trichloride color reaction has been a popular method for estimating the vitamin A potency of fish-liver oils and finds usage as a control test. However, the method has been subjected to such a great amount of criticism that many investigators consider the test to carry no degree of reliability. In spite of this criticism, there are others who have found the method useful and continue to use it, taking cognizance of its reported limitations. One of the principal criticisms of the method is that there is no consistent relationship between Blue value (colorimetric method) and Biological value as determined with rats. In this case, however, the data are generally viewed from the standpoint of a direct comparison.

During the course of our liver oil studies, Blue unit values have been obtained on a relatively large number of liver oil samples having vitamin A potencies varying between 5,000 and 200,000 U. S. P. units per gram as determined by biological assay. In studying these data, there was found to be a definite power relationship between the two types of values. In applying this correction it has been possible to increase the accuracy of the test.

FISH OILS IN PAINTS

During the past year, as a result of conferences of our technologists with members of the industry, there was a greatly increased use of fish oils in paints. Not only did this increase extend to the lower grades of paints, but, for the first time in the history of the paint industry, some of the leading paint manufacturers made extensive use of fish oils as ingredients of the higher priced paints and this fact was widely advertised in trade journals. This development can be attributed largely to improvements in the refining of fish oils by some of the leading refiners of the country, with the cooperation and assistance of our technologists.

STUDIES ON FAT IN FISH MEAL

As fish meals have become more widely used and their properties more thoroughly understood, the question of fat content has likewise become an important consideration. The reason for this is that the amount of fat present is an indication of the proportion of the material which may be subject to oxidative deterioration. Consequently, low fat content meals are preferred by some consumers and sale may be predicated upon this factor. Unfortunately, however, the fat, or more correctly the oil, becomes less soluble in normal solvents when oxidized, and oxidation may, therefore, lead to an apparent decrease in fat content. Furthermore, accepted practice for determining fat is not uniform. The unsatisfactory nature of this situation is obvious because a meal reported as having a low solvent extract value may have reached this condition as a result of oxidative deterioration.

For some time the Bureau has appreciated the need for tests which will clarify this confusing condition, because such information would not only lead to more satisfactory methods of control in marketing fish meal but would also provide useful means in furthering study of changes taking place during storage and the effectiveness of improved storage practice.

During the past year attention has been given to determining the relative amounts of extractable material removed by different solvents from fish meal soon after being prepared and after extended storage under conditions known to lead to oxidative deterioration. Sixteen solvents were tested on two separate types of fish meal. The most significant aspect of the data secured on these tests illustrated the widely differing effectiveness of individual solvents and the fact that effectiveness is closely related to chemical structure. This will materially facilitate the work contemplated during the ensuing year.

In addition to the studies mentioned above, which were conducted in the Seattle laboratory, the Bureau's nutrition laboratory at College Park, Md., has been studying the physiological effect of the development of rancidity or oxidative deterioration in the fat of various fish meals, and other chemical changes, in the feeding of both white rats and baby chicks, as laboratory animals. This latter investigation particularly emphasizes the effect on these animals of any physiological and chemical changes which may be induced under varying conditions of manufacture, handling, and storage, which may cause the development of rancidity of the fat or the partial digestion of the protein in these fish meals. These studies have not progressed to a point where any conclusions can be reported.

CHEMICAL PRESERVATION OF FISH AND FISH WASTE

Several years ago the Bureau established a cooperative arrangement with the Aquacide Co., Washington, D. C., for the conduct in the Bureau's College Park technological laboratories of a study of methods of chemical preservation of fish and fish waste. At many points in the United States and in Alaska there are relatively small accumulations of fish waste or waste fish, not sufficient to justify the installation of machinery or mechanical equipment for the production of byproducts, but sufficiently large to merit the development of cheaper methods of utilization. The problem has been attacked from two standpoints. One is the temporary chemical preservation of the waste until it can be transported to some central point for more complete mechanical reduction and the other is outright chemical preservation or reduction for use as fertilizer stock, etc.

As in 1935 and 1936, the Aquacide Co., during 1937, employed and stationed in our laboratories Harold E. Crowther, R. H. Flowers and C. E. Swift, research associates. Already, results of considerable practical value have evolved from this program of cooperative research. A chemical solution developed by the above company has been tested on various types of fishery waste and has been shown to be very effective in its preservative qualities. In recent years its effectiveness has been improved by numerous tests on fishery waste. One very important commercial possibility, as a result of this work, is the temporary chemical preservation of cod livers and other fish livers at sea until these livers can be transported to a central plant for the extraction of the oil. The widespread application of this method has promise of saving from spoilage many fish livers which now do not reach the plant quickly enough for the extraction of an oil of good quality. At the present time only a relatively small part of the catch of haddock and cod is made close to shore, and for this reason the method may find use as a temporary means of preservation for the livers yielded by the fisheries for these species.

During 1937 one of the research associates working on the chemical preservation of fish waste was stationed at Boston, Mass., to direct the handling and preservation of fish livers at sea. Under his direction many types of chemical preservatives were tested under practical conditions. The preservative solutions were sent to sea on fishing vessels and fresh livers were placed in these solutions by the fishermen. The livers were then shipped to the Bureau's College Park laboratories, where they were inspected, rendered, and the relative quality of the oils determined. By these experiments there was developed a very effective preservative chemical solution which stopped bacterial and enzymatic decomposition and kept the oils in their original fresh condition. However, rendering methods in ordinary commercial use were not easily adapted to these preserved livers. Therefore, a new "flotation" process was developed which results in high yields of oil, oils of high quality, and economy of operation. The details for large scale application for these preservative and rendering processes are now worked out on a semicommercial basis and the commercial usefulness of the work seems assured.

As a part of this cooperative program our nutrition laboratory is making an extensive study of the vitamin A and D content of the various organs of the viscera of cod, cusk, hake, halibut, haddock, pollock, and other species preserved with the chemical formulas.

NUTRITIVE VALUE OF AQUATIC PRODUCTS

There is a great need for more complete information concerning the food value of various commercially important fishery products. There is also considerable demand for this information, not only from the industry, but from the consuming public. There are notable gaps in this information because scientific studies have not covered all of these fishery products, and there is only partial knowledge of the nutritional properties of some of the others. The lack of this information hinders dietitians and home economics experts in determining the most satisfactory use of fishery products in the diet. The food and drug industries need, and have requested, information on the nutritive value of aquatic products. The feed manufacturer and the farmer require more complete data on the qualities of fishery products for animal feeding. Therefore, it is highly important that our technological staff obtain, as soon as possible, more complete information on this subject, and at least fill in the important gaps in scientific knowledge concerning the unexcelled nutritional value of these products of the sea.

Furthermore, nutrition studies are necessary to properly evaluate our technological investigations on the improvement of existing methods and the design of new methods in the handling, utilization, processing, preservation, and storage of the great diversity of products of the fishery industries.

During 1937 investigations concerning the nutritive value of fishery products and byproducts were conducted in our College Park laboratories under the supervision of James M. Lemon, technologist in charge, by Dr. Hugo W. Nilson, assistant pharmacologist; S. R. Pottinger, junior technologist; Charles F. Lee, junior chemist; William B. Lanham, Jr., junior chemist; Joseph F. Puncochar, junior bacteriologist; and Willis H. Baldwin and Hillman C. Harris, graduate student assistants, with the cooperation of Professor M. H. Berry of the Dairy Department, Maryland State Agricultural Experiment Station; and in our Seattle laboratory under the supervision of Roger W. Harrison, technologist in charge, assisted by Charles Butler, William Clegg, Louis Simenson, Marie Sater, and Rhea Waterberry, chemists, assigned to our laboratory by the Works Progress Administration; and with the cooperation of Dr. J. S. Carver, Washington State College, Pullman, Wash.

VITAMIN CONTENT OF FISHERY PRODUCTS

As in former years, our nutrition laboratory continued assays of numerous samples of fish oils and fish-liver oils from different species for content of vitamins A and D, prepared experimentally in connection with the byproducts program of our Seattle laboratory. We also began, in cooperation with the Federated Scallop Producers Cooperative Association, determinations of vitamins A and D in scallop waste, but we had to discontinue this work before it was completed because the association and the scallop industry failed to continue its support in supplying samples in accordance with the laboratory schedule. However, preliminary studies indicated a higher vitamin A potency in scallop waste than we have found in the flesh of other species of fish or shellfish previously analyzed.

In a previous section in this report, some studies were discussed which were started in 1937 in connection with the use of ultraviolet rays in killing bacteria in fish. In addition to the value of these rays in reducing the bacterial count in fish so treated, preliminary analyses by the nutrition laboratory showed that the irradiation of haddock fillets by this mercury vapor lamp increased the vitamin D potency of the samples. If more complete data or further studies in this connection substantiate these conclusions, this discovery will have considerable commercial significance, as fish fillets or other edible portions of fish could be irradiated in the same manner as milk is now treated and sold by dairies at a premium as "vitamin D milk."

Recent discoveries in the chemistry of vitamins have shown that the substance which chemists originally classified under the term, "vitamin B," is really a combination of vitamins. This combination or substance is now known as the vitamin B complex. Newer knowledge of vitamins, being obtained by scientists every day, is gradually identifying the vitamins which make up this complex. This means that the interpretations of the results of nearly all of the previous analyses of vitamin B and vitamin G, which formerly was classed with vitamin B in fishery products and in other foods, must be modified in accordance with these more recent discoveries. Therefore, the Bureau's nutrition laboratory has found it necessary to devote a limited amount of time to the development or standardization of new methods of analysis for these vitamins, constituting the vitamin B complex, for application to fishery products. Studies of the vitamin B complex in oysters and in three types of canned salmon have been begun.

CHEMICAL COMPOSITION AND NUTRITIVE VALUE OF FISH PROTEINS

As was discussed in last year's report, technologists in the College Park laboratory began, during the latter part of 1935, a study of the composition and nutritive value of proteins in some of the commercially important species of fish and shellfish. This information has been desired by welfare authorities, physicians, dietitians, and others interested in nutrition and health. Protein, which is the basis of all diets of man and his domestic animals, is a very complex chemical compound and varies in biological or nutritive value according to its composition. To date our technologists have isolated and determined the amounts of cystine, tryptophane, arginine, histidine, and lysine in cod, haddock, sea herring, Boston mackerel, Spanish mackerel, croaker, mullet, shad, red snapper, halibut, lake trout, oysters, crabs, clams, and shrimp. In feeding experiments with laboratory animals, it was found that fish proteins were at least 90 percent digestible. It was also found that the proteins from fishery products were definitely superior to both casein and beef in promoting growth in the experimental animals, when fed in a diet in which the protein was a limiting factor.

The concentrates, extracted from the various species of fish and shellfish mentioned above, constitute a highly nutritious and attractive flour or meal which consists of about 95 percent protein and 3 percent mineral constituents. As it is almost a pure protein, it should have great possibilities as an ingredient of baby and invalid foods. Likewise, it should be well suited for making such bakery products as cookies and crackers. These concentrates could be made on a commercial scale from many species of fish, not now finding a ready sale, as well as from the edible trimmings of our common market fishes.

MINERAL CONSTITUENTS OF FISHERY PRODUCTS AND BYPRODUCTS

As has been stated previously, the mineral constituents of foods are being shown to be of increasing importance as the science of nutrition progresses. About 34 mineral elements have been identified in sea water, and nearly all of them have been found, in traces at least, in aquatic products. Among the minerals which have been shown to be of great importance in nutrition are calcium, phosphorus, iodine, copper, iron, manganese, and magnesium. In general, fishery products are excellent sources of these mineral constituents and superior sources of some of them, such as iodine. In order to determine the relative standing of various fishery products in these minerals, detailed analyses were made, during 1937, of the kinds and quantities of these mineral constituents in cod, haddock, mackerel, salmon (canned), shrimp, crab meat, and oysters.

FISH MEAL IN ANIMAL FEEDING

The Bureau's cooperative experiments with the Department of Poultry Husbandry at Washington State College, Pullman, Wash., were continued during the past year. This work has been concerned largely with the vitamin content of fish meals.

In earlier studies evidence was obtained indicating the practicability of producing fish meals containing sufficient vitamin D to supply an adequate amount of this vitamin to the ration when the meals are included in normal quantity. In the present work attention is being given to the matter of vitamin retention, since the utility of fish meals must be based on their quality when fed, and this may mean after storage periods up to and exceeding 1 year.

The principal problem in storing meals containing any appreciable quantity of oil is to prevent oxidation changes in the oil which lead to the formation of undesirable rancid products and cause vitamin destruction. The investigation during the past year was designed to study the effect of cereal flours as antioxidants when incorporated with the meal during storage. The experimental samples, however, carried a much higher vitamin content than was anticipated and a proper level of diet was not determined during the time allowed for this particular work. The experiments are being repeated during the present year, and, in addition, attention is being given to the effectiveness of pelleting as a means of preventing deterioration during storage. When the meal is compressed into pellet form the tremendous surface exposed by the finely ground material is drastically reduced, air is excluded and only a limited opportunity for oxidation is permitted.

KELP MEAL IN ANIMAL FEEDING

One of the principal problems of the modern dairy industry, according to animal husbandrymen, is the irregularity in the reproductive capacity of dairy cows. Workers in dairy science have been looking for some means to arrest this condition through improvements in the ration of the dairy herd. Since it has been known for some time that certain minerals influence reproduction and lactation, in their search for dietary solution, the attention of dairy husbandrymen has been directed to so-called mineral feed supplements. Kelp meal, a dried and finely ground product of the giant kelp, a species of seaweed of the Pacific coast, is known to be an excellent organic source of certain minerals which have nutritional value. Dr. McCollum, of Johns Hopkins University, has shown that magnesium and manganese are important in reproduction and lactation in such laboratory test animals as white rats. Kelp meal is an excellent source of these two minerals. Therefore, during the past year, in cooperation with our technologists, Professor M. H. Berry, of the Dairy Department, Maryland State Agricultural Experiment Station, College Park, Md., inaugurated a series of feeding tests with dairy animals to determine whether the addition of kelp meal to these experimental rations would have any value in improving reproduction in dairy cattle. Because of the nature of the experiments and the time element involved, it is expected that at least 3 years will be required to obtain results on which any conclusions can be based.

FISH COOKERY STUDIES AND DEMONSTRATIONS

As stated previously in this report, there has been a great increase in interest on the part of dietitians, home economics workers, and others, in the nutritive value of fishery products and their importance in the diet of the American people. From this, it would naturally be expected that there would be a great need and a great demand for information on fish cookery. Therefore, during 1937, Agnes I. Webster, of the Division's staff, continued her studies and practical demonstrations of fish cookery recipes. In addition to the developing and testing of new recipes in our fish cookery laboratory, Miss Webster also conducted practical demonstrations before home economics workers, housewives, etc., in New Brunswick, N. J.; Baltimore, Md.; and various points in the State of Florida.

During 1937, the Federal Surplus Commodities Corporation purchased a considerable quantity of surplus fish for distribution to persons on relief rolls in various parts of the country. In connection with the distribution of these fish, Miss Webster conducted practical demonstrations in fish cookery before relief workers, and others interested, at various points in the Midwest.

RESEARCH ASSOCIATES AND STUDENT ASSISTANTS

Because of the relatively small size of the Bureau's technological staff, and the rather broad field of research it must cover, it is only possible to undertake those problems which are of a fundamental nature and which promise to be of the greatest value to the largest number of persons, whose livelihood depends in whole or in part on the fisheries, and which are possible with the funds and personnel available. For this reason the Division cannot, with present facilities, attack problems of special or restricted interest affecting certain products, processes, methods, or industries. However, the Bureau has available, by congressional authorization and under an arrangement similar to that of other scientific Government bureaus, facilities for research associates and student assistants in its laboratories. The salaries and expenses of these employees are paid by the firms or groups who are interested in the problems on which they are working and the investigations are carried out under the supervision of the Bureau's technologists in its laboratories and under its control. Thus the Bureau provides these industries and groups with laboratory, consulting, and library facilities which, in most instances, cannot be obtained elsewhere.

Within the limits of its facilities, the Bureau also has opened its technological laboratories to research students who are pursuing courses in universities and who are selecting investigational problems in the fisheries as their major study. This may prove of special benefit to the industry as it brings its problems to the attention of a large group of research workers who in turn may spread interest to applied fishery research.

The following research associates and student assistants carried on investigations under the supervision of our technological staff during the past year:

In the College Park Laboratory, C. E. Swift, research associate, employed by the Musher Foundation, Inc., New York City, working on the problem of rancidity in fishery products and byproducts; Harold E. Crowther, R. H. Flowers, and C. E. Swift, research associates, employed by the Aquacide Co., Washington, D. C., working on problems in the chemical preservation of fishery byproducts; William B. Lanham, Jr. (part of the year), Willis H. Baldwin, Hillman C. Harris, and Louis F. Ortenzio, part-time graduate student assistants, employed by the Bureau of Fisheries and working on problems in the chemistry and metabolism of fish products, lactic acid as an index of decomposition in fish, and in the handling of fresh oysters; Ned Oakley and Roscoe Dwiggins, student assistants provided by the National Youth Administration through the University of Maryland.

In the Seattle technological laboratory, Leslie Lowen, research associate, employed by the Musher Foundation, Inc., New York City, working on the problem of rancidity in fishery products and byproducts; and Neil Nellis and Robert Rucker, student assistants provided by the National Youth Administration through the University of Washington.

The details of the above work has been described in the preceding pages.

EDUCATIONAL AND CONSULTING SERVICE

In addition to the research activities described in this report, our economic and technological staffs conduct, along with their regular duties, an educational and consulting service for those interested in the fisheries. During the past year the demand for this type of service has increased. Many requests have been received from groups and individuals to demonstrate improved methods developed in our laboratories for the handling and processing of fishery products, for instruction in fish cookery, and for aid in improving various marketing practices. Insofar as our facilities have permitted, we have complied with these requests, endeavoring to offer assistance especially where the request has come from a large group or industry. However, we have not been able to comply with all of the requests received because of insufficient personnel and because of inadequate funds to provide for the travel expenses of the demonstrators.

Some of the educational services rendered are discussed or referred to in previous paragraphs of this report. In brief, this work has covered the fields of commercial preserving of fishery products, fish cookery in the home, and the marketing of aquatic products.

Another phase of this service has consisted in answering thousands of letters directed to the Bureau on fishery subjects and in supplying information to persons who have called at the Bureau personally. Many of the latter came from foreign lands to seek fishery information which might be useful in the conduct of the industry in their native country.

PUBLICATIONS OF THE DIVISION

During the calendar year 1937 the following publications were prepared and addresses delivered by members of the Division's staff. These do not include the monthly statistical bulletins of the landings of fishery products at Boston and Gloucester, Mass., Portland, Maine, and Seattle, Wash., nor the monthly reports on cold-storage holdings of frozen fish and quantities of fish frozen. The fishery reports and circulars may be purchased, at the prices shown, from the Superintendent of Documents, Government Printing Office, Washington, D. C. The statistical bulletins and special or S-memoranda are distributed free of charge upon request to the Bureau. The special articles may be obtained from the sources of publication.

Those wishing to receive copies of this report, and statistical bulletins as issued should request that their names be placed on the Bureau's mailing lists, Nos. 128 for the annual statistical report; 128a for general statistical bulletins; and 128b for monthly cold-storage reports. Those desiring historical statistical data on the domestic fisheries for the period 1880 to 1929 should consult the report entitled "Fishery Industries of the United States, 1930," by R. H. Fiedler, appendix II to the Report of the United States Commissioner of Fisheries for the fiscal year 1931. Statistical information for the years 1930 to 1935, inclusive, may be obtained from the annual reports of the Division for the years 1931 to 1936, inclusive.

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  Vitamin content of oils from cannery trimmings of salmon from the Columbia River and Puget Sound regions. 8°, 8 pp. Investigational Report No. 36. 5 cents.

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Part 2. FISHERY STATISTICS, 1936

GENERAL REVIEW

Based upon available statistics for 1936, there was a large increase in the catch of fishery products in the United States and Alaska as compared with that of the preceding year. Statistics of the catch were collected for both 1935 and 1936 in the Chesapeake, Pacific, and Lake States and in Alaska, and, when considering the combined catch of these sections alone, an increase of 22 percent in the volume and 19 percent in the value of the catch is indicated. While these increases are reflected in each of the four geographical sections and in many species, they are especially important in increased catches of pilchard in California, and salmon in Alaska. The value of the production of canned fishery products in all sections increased 26 percent as compared with 1935; byproducts increased 17 percent; frozen fish about 1 percent; and packaged fish 6 percent.

The total catch of fishery products in the United States and Alaska as based on the most recent surveys, amounted to 4,840,299,000 pounds, valued at $92,823,000. About 129,000 fishermen were employed in making this catch.

In 1936 in the United States and Alaska, the production of canned fishery products amounted to 794,707,014 pounds, valued at $94,564,254; the output of byproducts was valued at $34,976,347; and production of frozen fishery products, excluding packaged products, amounted to 106,679,695 pounds, estimated to be valued at $8,700,000. Based on the most recent surveys the production of cured fishery products amounted to 116,310,859 pounds, valued at $15,615,682, and fresh and frozen packaged fish and shellfish, 202,395,954 pounds, valued at $26,894,905. It is estimated that about 680,000,000 pounds of fresh fishery products (excluding fresh packaged fish and shellfish), valued at about $55,000,000, were marketed during 1936. The total marketed value to domestic primary handlers of all fishery products in 1936 is estimated at $236,000,000.

Fishery products imported for consumption were valued at $41,872,560 and domestic exports were valued at $13,214,166.

New England States.—No survey for the entire catch of fishery products in these States was made for 1936. In 1935 both the volume and value of the catch showed an increase as compared with 1933, when the first preceding survey of the complete catch was made. There were increases in both the volume and value of the combined landings of fishery products by vessels at Boston and Gloucester, Mass., and Portland, Maine, and a large increase in the production of Maine sardines in 1936 as compared with 1935.

Middle Atlantic States.—No complete survey for the catch of fishery products in these States was made for 1936. In 1935 there was a large increase in both volume and value of the catch as compared with the catch in 1933, when the first previous survey was made. There was a large increase in the production of frozen fish and in the catch of shad in the Hudson River in 1936 as compared with 1935.

Chesapeake Bay States.—In 1936 the catch of fishery products in the Chesapeake Bay States increased in both volume and value as compared with the preceding year. The value of the menhaden products, which were produced in Virginia, increased appreciably; however, the production of fresh-shucked oysters and packaged fresh-cooked crab meat decreased.

South Atlantic and Gulf States.—The catch of fishery products in the South Atlantic and Gulf States during 1936 showed large increases in both volume and value over 1934, when the first preceding survey of the catch was made. There was a large increase in the volume and value of packaged fresh-cooked crab meat in 1936 as compared with 1934. The output of canned shrimp and oysters in 1936 showed only slight variation from the production in 1935.

Pacific Coast States.—The commercial catch of fishery products in these States for 1936 was the largest of any year on record and the value of the catch exceeded that of any previous year except 1929. The increased volume of the catch was largely accounted for by the record catch of pilchards in California. The 1936 production of canned sardines, tuna, and oysters increased as compared with 1935 while the packs of mackerel and salmon decreased.

Lake States.—In 1936 the commercial catch of fishery products in the Lake States increased in both volume and value as compared with 1935. The catch of blue pike was the largest on record, while that of yellow perch was below normal.

Mississippi River and tributaries.—The most recent complete statistics of the catch of the Mississippi River and tributaries are those collected for 1931. As compared with 1922, when the most recent preceding survey was made, there was a decrease in the catch. This decrease was reflected principally in a smaller catch of fresh-water mussels. A survey made for Lakes Pepin and Keokuk and the Mississippi River between these two lakes showed an increase in 1936 for the catch for Lake Keokuk and the river between the lakes, but a decrease in the figures for Lake Pepin. The production of fresh-water mussel-shell buttons increased in 1936 as compared with 1935.

Alaska.—The catch of fishery products in Alaska in 1936 increased in both volume and value as compared with 1935, and the pack of canned salmon was the largest in history. The production of fresh and frozen fishery products increased while that of byproducts and cured products decreased.

Fisheries of the United States and Alaska

SUMMARY OF CATCH: BY SECTIONS

[Expressed in thousands of pounds and thousands of dollars; that is, 000 omitted]

Product	New England, 1935 Area XXII		Middle Atlantic, 1935 Area XXIII		Chesapeake, 1936 Area XXIII		South Atlantic and Gulf, 1936 Areas XXIV and XXV		Pacific, 1936	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
Fish	609, 136	12, 539	245, 728	2, 904	237, 230	2, 299	385, 444	6, 444	1, 901, 038	22, 944
Shellfish, etc	46, 294	5, 445	33, 710	3, 512	76, 865	4, 189	171, 548	7, 098	21, 515	1, 856
Whale products									2, 790	82
Total	655, 430	17, 984	279, 438	6, 416	314, 095	6, 488	556, 992	13, 542	1, 925, 343	24, 882

Product	Lakes, 1936		Mississippi River and tributaries, 1931		Alaska, 1936		Total for the various years	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
Fish	92, 888	6, 349	44, 062	2, 257	920, 977	13, 739	4, 436, 503	69, 475
Shellfish, etc	1, 389	40	38, 321	640	2, 550	152	392, 192	22, 932
Whale products					8, 814	334	11, 604	416
Total	94, 277	6, 389	82, 383	2, 897	932, 341	14, 225	4, 840, 299	92, 823

NOTE.—The roman numerals appearing under the names of the sections are the numbers given these areas by the North American Council on Fishery Investigations. It should be explained that there are included under these areas craft whose principal fishing ports are in the respective areas but at times they may fish elsewhere.

OPERATING UNITS: BY SECTIONS

Item	New England, 1935	Middle Atlantic, 1935	Chesapeake, 1936	South Atlantic and Gulf, 1936 [1]	Pacific, 1936
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	5, 023	2, 499	2, 559	3, 937	7, 408
On boats and shore	13, 426	7, 121	15, 724	25, 069	13, 212
Total	18, 449	9, 620	18, 283	29, 006	20, 620
Vessels:					
Steam	39	19	25		2
Net tonnage	5, 977	2, 090	2, 882		41
Motor	582	368	184	951	1, 029
Net tonnage	16, 074	5, 834	2, 596	11, 585	28, 456
Sail		4	145	79	5
Net tonnage		29	1, 781	777	2, 170
Total vessels	621	391	354	1, 030	1, 036
Total net tonnage	22, 051	7, 953	7, 259	12, 362	30, 667
Boats:					
Motor	4, 457	1, 830	6, 648	7, 059	5, 437
Other	4, 623	3, 251	5, 130	10, 051	863
Accessory boats	857	177	112	170	722
Apparatus:					
Haul seines	140	260	360	1, 158	254
Purse seines	157	38	33	48	412
Lampara nets					229
Otter trawls	479	175	26	3, 649	58
Beam trawls					27
Paranzella nets					12
Gill nets	6, 319	1, 619	8, 657	14, 047	3, 860
Trammel nets				753	37
Pound nets, trap nets, and weirs	457	577	2, 478	2, 457	48
Stop nets		68	3		
Fyke nets	303	1, 655	2, 987	692	1, 938
Bag nets	148				11
Other nets [2]	457	489	2, 486	9, 999	634
Hooks, baits, or snoods	3, 236, 009	474, 013	2, 526, 096	1, 467, 904	1, 100, 171
Fish wheels				13	
Eel pots and traps	3, 016	5, 349	14, 899	2, 205	

[1] Includes the fisheries of Lake Okeechobee, Florida.

[2] Includes dip nets, push nets, reef nets, scap nets, drag nets, cast nets, and drop nets.

Fisheries of the United States and Alaska—Continued

OPERATING UNITS: BY SECTIONS—Continued

Item	New England, 1935	Middle Atlantic, 1935	Chesapeake, 1936	South Atlantic and Gulf, 1936	Pacific, 1936
Apparatus—Continued.	*Number*	*Number*	*Number*	*Number*	*Number*
Brush traps	-----	-----	-----	25,500	-----
Lobster pots and traps	289,437	17,449	-----	-----	6,705
Crab, crawfish, and turtle pots and traps	6,107	10	275	7,281	33,457
Clam dredges	63	68	-----	1	-----
Crab dredges	-----	61	232	20	-----
Mussel dredges	-----	9	-----	-----	-----
Oyster dredges	160	346	655	724	6
Scallop dredges	3,587	490	-----	74	-----
Crab scrapes	-----	-----	755	-----	-----
Tongs, rakes, shovels, hoes, forks, picks, etc	5,721	4,938	8,387	3,484	4,381
Diving outfits	-----	-----	-----	59	22
Other apparatus [3]	1,505	8,729	133	4,971	74

Item	Lakes, 1936	Mississippi River and tributaries, 1931	Alaska, 1936	Total for the various years
Fishermen:	*Number*	*Number*	*Number*	*Number*
On vessels	1,589	-----	[4] 11,722	34,737
On boats and shore	4,034	15,884	-----	94,470
Total	5,623	15,884	11,722	129,207
Vessels:				
Steam	55	-----	7	147
Net tonnage	1,317	-----	547	12,854
Motor	420	-----	893	4,427
Net tonnage	4,750	-----	12,108	81,403
Sail	-----	-----	-----	233
Net tonnage	-----	-----	-----	4,757
Total vessels	475	-----	900	4,807
Total net tonnage	6,067	-----	12,655	99,014
Boats:				
Motor	1,294	4,426	1,318	32,469
Other	1,327	10,120	3,951	39,316
Accessory boats	18	-----	-----	2,056
Apparatus:				
Haul seines	207	1,013	217	3,609
Purse seines	-----	-----	803	1,491
Lampara nets	-----	-----	-----	229
Otter trawls	-----	-----	-----	4,387
Beam trawls	-----	-----	12	39
Paranzella nets	-----	-----	-----	12
Gill nets	119,586	101	4,244	158,433
Trammel nets	78	518	-----	1,386
Pound nets, trap nets, and weirs	8,466	374	460	15,317
Stop nets	-----	-----	-----	71
Fyke nets	1,512	32,541	-----	41,628
Bag nets	-----	-----	-----	159
Other nets [2]	-----	191	-----	14,256
Hooks, baits, or snoods	591,839	2,459,179	(5)	11,855,211
Fish wheels	-----	-----	297	310
Eel pots and traps	-----	-----	-----	25,469
Brush traps	-----	-----	-----	25,500
Lobster pots and traps	-----	-----	-----	313,591
Crab, crawfish, and turtle pots and traps	1,040	456	3,354	51,980
Clam dredges	-----	-----	-----	132
Crab dredges	-----	-----	-----	313
Mussel dredges	-----	440	-----	449
Oyster dredges	-----	-----	-----	1,891
Scallop dredges	-----	-----	-----	4,151
Crab scrapes	-----	-----	-----	755
Tongs, rakes, shovels, hoes, forks, picks, etc	128	3,994	-----	31,033
Diving outfits	-----	-----	-----	81
Crowfoot bars	257	4,480	-----	4,737
Other apparatus [3]	-----	3,781	-----	19,193

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[3] Includes periwinkle, cockle and fish pots, harpoons, spears, hooks, grabs, coquina scoops, slat traps, and wire baskets.

[4] Includes persons in boats and shore fisheries.

[5] Number not determined.

Fisheries of the United States and Alaska—Continued

CATCH: BY SECTIONS

[Expressed in thousands of pounds and thousands of dollars; that is, 000 omitted]

Species	New England, 1935		Middle Atlantic, 1935		Chesapeake, 1936		South Atlantic and Gulf, 1936		Pacific, 1936	
FISH	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
Alewives	4, 406	25	554	7	12, 058	109	12, 160	131		
Amberjack							13	(6)		
Anchovies	4	(6)							195	2
Angelfish							2	(6)		
Barracuda									2, 978	141
Black bass					61	5				
Bluefish	357	32	2, 976	193	446	24	5, 894	309		
Blue runner or hardtail							615	8		
Bonito	33	2	301	9	53	3				
Bowfin					7	(6)	7	(6)		
Buffalofish							44	2		
Butterfish	2, 294	83	6, 438	266	2, 277	50	358	6		
Cabio or crab eater					9	1	6	(6)		
Cabrilla									197	7
Carp	52	4	494	36	741	28	511	14	196	4
Catfish and bullheads			120	8	743	24	5, 132	175	305	37
Cigarfish							11	(6)		
Cod	120, 334	2, 514	1, 856	84	4	(6)			12, 922	203
Crappie					10	1	463	16		
Crevalle	1	(6)	1	(6)			183	3		
Croaker	2, 350	43	8, 042	127	31, 255	332	10, 277	120		
Cunner	1	(6)	3	(6)						
Cusk	7, 556	137								
Dolphin							5	(6)		
Drum:										
Black			9	(6)	15	(6)	2, 666	68		
Red or redfish	2	(6)	39	1	38	1	2, 990	148		
Eels:										
Common	420	33	619	69	276	21	83	4		
Conger	113	1	21	1	2	(6)				
Flounders	38, 734	1, 321	9, 252	514	455	26	1, 795	106	16, 242	749
Flyingfish									56	2
Frigate mackerel	82	1	158	2						
Garfish					3	(6)				
Gizzard shad			2	(6)	310	4	42	(6)		
Goosefish	3	(6)	71	1						
Grayfish	35	1	116	2	1	(6)			802	10
Groupers			2	(6)			5, 247	156	61	2
Grunts							67	2		
Haddock	194, 606	4, 276	1, 323	61	(6)	(6)				
Hake	26, 541	376	209	5	25	(6)			51	1
Halibut	2, 925	252							24, 892	2, 130
Hardhead									107	5
Harvestfish or "starfish"					272	3	893	11		
Herring, sea	54, 329	286	334	3	462	2			1, 853	14
Herring smelt	13	(6)								
Hickory shad	(6)	(6)	4	(6)	87	2	285	8		
Hogfish					(6)	(6)	13	(6)		
Horse mackerel									4, 599	38
Jewfish							63	2		
Kingfish (California)									652	16
Kingfish or "king mackerel"	(6)	(6)	13	1			3, 947	161		
King whiting or "kingfish"	5	(6)	71	5	143	4	3, 288	72		
Lamprey	2	(6)								
Launce	34	(6)	2	(6)						
"Lingcod"									2, 493	75
Mackerel	61, 950	1, 249	3, 082	91	125	8	1	(6)	100, 542	932
Marlin									17	1
Menhaden	4, 284	14	179, 603	474	167, 559	916	233, 463	927		
Minnows	4	3								
Mojarra							352	8		
Mooneye										
Moonfish							2	(6)		
Mullet			99	4	105	5	42, 543	1, 354	11	1
Mummichog	6	1	13	1						
Muttonfish							165	12		
Paddlefish or spoonbill cat							14	1		
Permit							24	1		
Pigfish			(6)	(6)	7	(6)	101	2		
Pike or pickerel (jacks)			(6)	(6)	40	7	1	(6)		

[6] Less than 500 pounds or dollars.

Fisheries of the United States and Alaska—Continued

CATCH: BY SECTIONS—Continued

[Expressed in thousands of pounds and thousands of dollars; that is, 000 omitted]

Species	New England, 1935		Middle Atlantic, 1935		Chesapeake, 1936		South Atlantic and Gulf, 1936		Pacific, 1936	
FISH—continued	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
Pilchard									1, 502, 299	7, 099
Pilotfish	1	(6)								
Pinfish							63	1		
Pollock	33, 394	547	22	1	(6)	(6)				
Pompano			4	1	(6)	(6)	738	153	8	4
Rock bass									416	21
Rockfishes									5, 289	185
Rosefish	17, 157	184								
Rudderfishes					(6)	(6)			44	2
Sablefish									4, 073	149
Salmon:										
Atlantic	40	10								
Blueback, red, or sockeye									3, 790	337
Chinook or king									32, 531	2, 465
Chum or keta									13, 109	223
Humpback or pink									124	2
Silver or coho									14, 477	680
Sculpin									129	10
Scup or porgy	6, 751	160	7, 095	135	1, 479	20	37	1		
Sea bass	3, 416	122	2, 089	106	106	7	347	19	398	22
Sea bass, white (California)									808	62
Sea catfish							290	7		
Sea robin	276	3	92	2	1	(6)				
Shad	727	40	1, 329	132	2, 185	235	1, 791	274	2, 996	67
Sharks	81	1	45	1	11	(6)	1, 113	4		
Sheepshead:										
Fresh water							1	(6)		
Salt water					(6)	(6)	1, 217	34	129	4
Silversides			70	3						
Skates	227	3	132	1	2	(6)			382	4
Skipper or "billfish"	(6)	(6)								
Smelt	729	86							3, 978	129
Snapper:										
Mangrove							243	10		
Red			15	1			7, 321	458		
Snook or sergeantfish							612	24		
Spadefish							25	1		
Spanish mackerel			24	2	21	1	9, 458	391	18	1
Splittail									29	1
Spot			19	1	947	18	8, 338	185		
Squawfish									(6)	(6)
Squeteagues or "sea trout:"										
Gray	327	15	10, 140	321	11, 689	226	8, 972	314		
Spotted			3	(6)	116	7	8, 681	615		
White							487	18		
Squirrel hake			25	(6)						
Steelhead trout									2, 693	144
Striped bass	22	3	62	8	2, 383	176	768	61	29	2
Sturgeon	5	1	20	3	27	2	105	9	182	6
Sturgeon, shovelnose										
Suckers	97	4	89	6	9	(6)	7	(6)	48	1
Sunfish			1	(6)	4	(6)	677	19		
Surffishes (perch)									322	13
Swellfish			5	(6)	2	(6)	1	(6)		
Swordfish	2, 986	424	43	9					577	64
Tautog	259	11	43	1	2	(6)				
Tenpounder							56	1		
Thimble-eyed mackerel	46	(6)	245	4						
Tilefish	161	8	2, 494	94						
Tomcod	17	1	7	(6)	(6)	(6)			4	(6)
Tripletail							38	1		
Tullibees										
Tuna and tunalike fishes:										
Albacore									984	91
Bluefin or horse mackerel	538	14	24	2	(6)	(6)			18, 925	922
Bonito									7, 216	221
Skipjack									26, 992	1, 191
Yellowfin									78, 353	4, 139
White bass									198	9
Whitebait			9	1						

[6] Less than 500 pounds or dollars.

Fisheries of the United States and Alaska—Continued

CATCH: BY SECTIONS—Continued

[Expressed in thousands of pounds and thousands of dollars; that is, 000 omitted]

Species	New England, 1935		Middle Atlantic, 1935		Chesapeake, 1936		South Atlantic and Gulf, 1936		Pacific, 1936	
FISH—continued	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
Whitefish:										
Common									47	3
Menominee										
White perch	51	6	113	7	483	20	194	10		
Whiting	17,415	182	5,629	96	20	(6)				
Wolffish	2,934	60			(6)	(6)				
Yellow perch	3	(6)	13	1	154	11	23	1		
Yellow pike										
Yellowtail							115	6	10,092	299
Miscellaneous									178	2
Total	609,136	12,539	245,728	2,904	237,230	2,299	385,444	6,444	1,901,038	22,944
SHELLFISH, ETC.										
Crabs:										
Hard	3,106	59	1,297	40	39,432	887	29,237	454	7,191	602
King or "horseshoe"			3,135	9						
Soft and peelers	(6)	(6)	390	107	4,239	418	594	115		
Stone							46	9		
Crawfish									87	10
Lobsters:										
Common	10,853	2,520	643	139	(6)	(6)				
Spiny							327	20	1,335	148
Shrimp			194	13			118,109	3,778	2,344	45
Abalone									660	93
Clams:										
Coquina							4	1		
Hard	4,057	451	5,217	794	2,673	412	1,494	118	892	67
Pismo									52	11
Razor	583	14							925	140
Soft	9,802	561	1,834	143					29	6
Surf	1	(6)	837	37						
Mixed									86	6
Conchs			9	1			8	(6)		
Mussels, sea	117	3	98	6	78	2				
Octopus									162	8
Oysters, market:										
Eastern, public	64	11	346	51	18,548	1,417	11,563	752		
Eastern, private	9,940	1,199	14,465	1,677	11,766	1,047	9,067	689	60	19
Japanese									6,377	457
Western									317	214
Periwinkles and "cockles"	159	7								
Scallops:										
Bay	1,504	261	107	36			431	47	22	5
Sea	1,670	231	2,640	344						
Squid	3,543	57	2,423	67	122	4			962	25
Sea urchins	35	(6)								
Terrapin					5	2	30	5		
Turtles			21	1	2	(6)	149	5	3	(6)
Irish moss	8	(6)								
Sponges							490	1,105		
Bloodworms	283	38	24	20						
Sandworms	569	33	30	27						
Trepang									10	(6)
Other shellfish									(6)	(6)
Total	46,294	5,445	33,710	3,512	76,865	4,189	171,549	7,098	21,514	1,856
WHALE PRODUCTS [7]										
Meat									1,600	32
Oil, whale									1,190	50
Total									2,790	82
Grand total	655,430	17,984	279,438	6,416	314,095	6,488	556,993	13,542	1,925,342	24,882

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[6] Less than 500 pounds or dollars.

[7] The weight of whales caught was not determined; therefore, the weight of the manufactured products s shown.

Fisheries of the United States and Alaska—Continued

CATCH: BY SECTIONS—Continued

[Expressed in thousands of pounds and thousands of dollars; that is, 000 omitted]

Species	Lakes, 1936		Mississippi River and tributaries, 1931		Alaska, 1936		Total for the various years	
FISH	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
Alewives							29, 178	272
Amberjack							13	(6)
Anchovies							199	2
Angelfish							2	(6)
Barracuda							2, 978	141
Black bass			14	2			75	7
Bluefish							9, 673	558
Blue pike	19, 936	1, 197					19, 936	1, 197
Blue runner or hardtail							615	8
Bonito							387	14
Bowfin	1	(6)	428	10			443	10
Buffalofish			15, 772	687			15, 816	689
Burbot	630	7					630	7
Butterfish							11, 367	405
Cabio or crab eater							15	1
Cabrilla							197	7
Carp	4, 972	129	11, 892	456			18, 858	671
Catfish and bullheads	925	52	10, 267	878			17, 492	1, 174
Chubs	6, 365	778					6, 365	778
Cigarfish							11	(6)
Cisco	68	7					68	7
Cod					722	4	135, 838	2, 805
Crappie	(6)	(6)	41	3			514	20
Crevalle							185	3
Croaker							51, 924	622
Cunner							4	(6)
Cusk							7, 556	137
Dolly Varden trout					16	1	16	1
Dolphin							5	(6)
Drum:								
Black							2, 690	68
Red or redfish							3, 069	150
Eels:								
Common	44	2	7	(6)			1, 449	129
Conger							136	2
Flounders							66, 478	2, 716
Flyingfish							56	2
Frigate mackerel							240	3
Garfish			73	1			76	1
Gizzard shad							354	4
Goldfish	336	10					336	10
Goosefish							74	1
Grayfish							954	13
Groupers							5, 310	158
Grunts							67	2
Haddock							195, 929	4, 337
Hake							26, 826	382
Halibut					19, 381	959	47, 198	3, 341
Hardhead							107	5
Harvestfish or "starfish"							1, 165	14
Herring:								
Lake	20, 758	572					20, 758	572
Sea					172, 828	864	229, 806	1, 169
Herring smelt							13	(6)
Hickory shad							376	10
Hogfish							13	(6)
Horse mackerel							4, 599	38
Jewfish							63	2
Kingfish (California)							652	16
Kingfish or "king mackerel"							3, 960	162
King whiting or "kingfish"							3, 507	81
Lake trout	9, 406	1, 394					9, 406	1, 394
Lamprey							2	(6)
Launce							36	(6)
"Lingcod"							2, 493	75
Mackerel							165, 700	2, 280
Marlin							17	1
Menhaden							584, 909	2, 331
Minnows			1	(6)			5	3
Mojarra							352	8
Mooneye	9	(6)	3	(6)			12	(6)
Moonfish							2	(6)
Mullet							42, 758	1, 364
Mummichog							19	2

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[6] Less than 500 pounds or dollars.

Fisheries of the United States and Alaska—Continued

CATCH: BY SECTIONS—Continued

[Expressed in thousands of pounds and thousands of dollars; that is, 000 omitted]

Species	Lakes, 1936		Mississippi River and tributaries, 1931		Alaska, 1936		Total for the various years	
FISH—continued	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
Muttonfish							165	12
Paddlefish or spoonbill cat			951	43			965	44
Permit							24	1
Pigfish							108	2
Pike or pickerel (jacks)	321	16	5	(6)			367	23
Pilchard							1, 502, 299	7, 099
Pilotfish							1	(6)
Pinfish							63	1
Pollock							33, 416	548
Pompano							750	158
Quillback			268	11			268	11
Rock bass	22	1					438	22
Rockfishes					33	1	5, 322	186
Rosefish							17, 157	184
Rudderfishes							44	2
Sablefish					1, 102	50	5, 175	199
Salmon:								
Atlantic							40	10
Blueback, red, or sockeye					226, 965	5, 366	230, 755	5, 703
Chinook or king					17, 882	409	50, 413	2, 874
Chum or keta					108, 555	1, 028	121, 664	1, 251
Humpback or pink					351, 258	4, 595	351, 382	4, 597
Silver or coho					22, 193	459	36, 670	1, 139
Sauger	2, 172	126	3	(6)			2, 175	126
Sculpin							129	10
Scup or porgy							15, 362	316
Sea bass							6, 356	276
Sea bass, white (California)							808	62
Sea catfish							290	7
Sea robin							369	5
Shad							9, 028	748
Sharks							1, 250	6
Sheepshead:								
Fresh water	3, 520	72	3, 905	143			7, 426	215
Salt water							1, 346	38
Silversides							70	3
Skates							743	8
Skipper or "billfish"							(6)	(6)
Smelt	1, 202	37					5. 909	252
Snapper:								
Mangrove							243	10
Red							7, 336	459
Snook or sergeantfish							612	24
Spadefish							25	1
Spanish mackerel							9, 521	395
Splittail							29	1
Spot							9, 304	204
Squawfish							(6)	(6)
Squeteagues or "sea trout":								
Gray							31, 128	876
Spotted							8, 800	622
White							487	18
Squirrel hake							25	(6)
Steelhead trout	2	(6)			42	3	2, 737	147
Striped bass							3, 264	250
Sturgeon	25	8					364	29
Sturgeon, shovelnose			87	8			87	8
Suckers	5, 905	152	315	13			6, 470	176
Sunfish	15	(6)	22	1			719	20
Surffishes (perch)							322	13
Swellfish							8	(6)
Swordfish							3, 606	497
Tautog							304	12
Tenpounder							56	1
Thimble-eyed mackerel							291	4
Tilefish							2, 655	102
Tomcod							28	1
Tripletail							38	1
Tullibees	103	2					103	2
Tuna and tunalike fishes:								
Albacore							984	91
Bluefin or horse mackerel							19, 487	938
Bonito							7, 216	221
Skipjack							26, 992	1, 191
Yellowfin							78, 353	4, 139

[6] Less than 500 pounds or dollars.

Fisheries of the United States and Alaska—Continued

CATCH: BY SECTIONS—Continued

[Expressed in thousands of pounds and thousands of dollars; that is, 000 omitted]

Species	Lakes, 1936		Mississippi River and tributaries, 1931		Alaska, 1936		Total for the various years	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
FISH—continued								
White bass	664	33	3	(6)			667	33
Whitebait							207	10
Whitefish:								
Common	4, 131	768					4, 178	771
Menominee	167	10					167	10
White perch							841	43
Whiting							23, 064	278
Wolffish							2, 934	60
Yellow perch	5, 957	421					6, 150	434
Yellow pike	5, 232	555	5	1			5, 237	556
Yellowtail							10, 207	305
Miscellaneous							178	2
Total	92, 888	6, 349	44, 062	2, 257	920, 977	13, 739	4, 436, 503	69, 475
SHELLFISH, ETC.								
Crabs:								
Hard					902	79	81, 165	2, 121
King (Pacific coast)					2	(6)	2	(6)
King or "horseshoe"							3, 135	9
Soft and peelers							5, 223	640
Stone							46	9
Crawfish	42	4	29	(6)			158	14
Lobsters:								
Common							11, 496	2, 659
Spiny							1, 662	168
Shrimp			49	4	866	33	121, 562	3, 873
Abalone							660	93
Clams:								
Coquina							4	1
Hard							14, 333	1, 842
Pismo							52	11
Razor					780	40	2, 288	194
Soft							11, 665	710
Surf							838	37
Mixed							86	6
Conchs							17	1
Mussels, sea							293	11
Mussel shells	1, 347	35	37, 255	422			38, 602	457
Octopus							162	8
Oysters, market:								
Eastern, public							30, 521	2, 231
Eastern, private							45, 298	4, 631
Japanese							6, 377	457
Western							317	214
Periwinkles and "cockles"							159	7
Scallops:								
Bay							2, 064	349
Sea							4, 310	575
Squid							7, 050	153
Sea urchins							35	(6)
Terrapin			19	(6)			54	7
Turtles			94	3			269	9
Frogs			875	131			875	131
Irish moss							8	(6)
Sponges							490	1, 105
Pearls and slugs		1		80				81
Bloodworms							307	58
Sandworms							599	60
Trepang							10	(6)
Other shellfish							(6)	(6)
Total	1, 389	40	38, 321	640	2, 550	152	392, 192	22, 932
WHALE PRODUCTS [7]								
Meat							1, 600	32
Fertilizer					2, 368	38	2, 368	38
Oil, sperm					1, 450	46	1, 450	46
Oil, whale					4, 996	250	6, 186	300
Total					8, 814	334	11, 604	416
Grand total	94, 277	6, 389	82, 383	2, 897	932, 341	14, 225	4, 840, 299	92, 823

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[6] Less than 500 pounds or dollars.

[7] The weight of whales caught was not determined; therefore, the weight of the manufactured products is shown.

Fisheries of the United States and Alaska—Continued

CATCH: BY STATES [8]

[Expressed in thousands of pounds and thousands of dollars; that is, 000 omitted]

States	Marine and coastal rivers		Mississippi River and tributaries		Lakes [9]		Total	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
Alabama	9,253	356	1,822	33			11,075	389
Arkansas			15,733	412			15,733	412
California	1,760,183	17,286					1,760,183	17,286
Connecticut	14,916	1,217					14,916	1,217
Delaware	86,666	430					86,666	430
Florida	171,250	5,162			2,353	76	173,603	5,238
Georgia	27,352	469					27,352	469
Illinois			14,263	367	1,368	133	15,631	500
Indiana			7,717	157	684	51	8,401	208
Iowa			7,778	303			7,778	303
Kansas			456	17			456	17
Kentucky			1,622	61			1,622	61
Louisiana	74,395	2,698	19,213	994			93,608	3,692
Maine	112,219	3,309					112,219	3,309
Maryland	43,791	2,176					43,791	2,176
Massachusetts	503,417	12,148					503,417	12,148
Michigan					29,674	2,350	29,674	2,350
Minnesota			3,498	137	7,993	353	11,491	490
Mississippi	26,595	926	2,650	123			29,245	1,049
Missouri			928	77			928	77
Nebraska			145	16			145	16
New Hampshire	354	62					354	62
New Jersey	107,802	2,844					107,802	2,844
New York	84,939	3,135			1,290	92	86,229	3,227
North Carolina	219,879	2,735					219,879	2,735
Ohio			185	7	31,099	1,711	31,284	1,718
Oklahoma			40	4			40	4
Oregon	57,741	1,995					57,741	1,995
Pennsylvania	31	6			3,899	348	3,930	354
Rhode Island	24,524	1,248					24,524	1,248
South Carolina	8,488	344					8,488	344
South Dakota			114	11			114	11
Tennessee			3,435	104			3,435	104
Texas	17,428	777	139	6			17,567	783
Virginia	270,304	4,312					270,304	4,312
Washington	107,418	5,600					107,418	5,600
Wisconsin			2,645	68	18,270	1,352	20,915	1,420
Alaska	932,341	14,225					932,341	14,225
Total	4,661,286	83,460	82,383	2,897	96,630	6,466	4,840,299	92,823

SEED OYSTER FISHERY

Item	New England, 1935	Middle Atlantic, 1935
OPERATING UNITS		
Fishermen:	*Number*	*Number*
On vessels	137	1,151
On boats and shore:		
Regular	29	74
Casual	1	154
Total	167	1,379
Vessels:		
Steam	4	
Net tonnage	344	
Motor	9	5
Net tonnage	236	85
Sail	15	109
Net tonnage	114	2,246
Total vessels	28	114
Total net tonnage	694	2,331

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[8] The catch for "Marine and coastal rivers" is for 1936 except in the New England and Middle Atlantic States which is for 1935; the catch of the "Mississippi River and tributaries" is for 1931; and the catch of the "Lakes" is for 1936.

[9] Includes Lake Ontario, Lake Erie, Lake Huron, Lake Michigan, Lake Superior, Rainy Lake, Namakan Lake, Lake of the Woods, Lake Okeechobee, and several mussel-bearing streams tributary to Lakes Huron, Erie, and Michigan.

Fisheries of the United States and Alaska—Continued

SEED OYSTER FISHERY—Continued

Item	New England, 1935		Middle Atlantic, 1935	
OPERATING UNITS—continued	*Number*		*Number*	
Boats:				
Motor	1		73	
Other	15		145	
Apparatus:				
Dredges, oyster	161		230	
Yards at mouth	142		283	
Tongs	7		202	
Rakes			25	
CATCH	*Bushels*	*Value*	*Bushels*	*Value*
Oysters, seed:				
Public, spring	17, 355	$6, 942	913, 505	$302, 954
Public, fall	88, 888	35, 658	24, 465	6, 502
Private, spring	355, 843	162, 334	30, 659	18, 412
Private, fall	20, 725	13, 600	11, 215	10, 128
Total	482, 811	218, 534	979, 844	337, 996

Item	Chesapeake, 1936		South Atlantic and Gulf, 1936		Total	
OPERATING UNITS	*Number*		*Number*		*Number*	
Fishermen:						
On vessels	46				1, 334	
On boats and shore:						
Regular	1, 187		55		1, 345	
Casual	164		45		364	
Total	1, 397		100		3, 043	
Vessels:						
Steam					4	
Net tonnage					344	
Motor	16				30	
Net tonnage	87				408	
Sail					124	
Net tonnage					2, 360	
Total vessels	16				158	
Total net tonnage	87				3, 112	
Boats:						
Motor	488		37		599	
Other	267				427	
Apparatus:						
Dredges, oyster			37		428	
Yards at mouth			25		450	
Tongs	1, 029				1, 238	
Rakes	188				213	
CATCH	*Bushels*	*Value*	*Bushels*	*Value*	*Bushels*	*Value*
Oysters, seed:						
Public, spring	350, 593	$62, 893	55, 500	$11, 100	1, 336, 953	$383, 889
Public, fall	479, 501	139, 831			592, 854	181, 991
Private, spring	15, 040	3, 008			401, 542	183, 754
Private, fall					31, 940	23, 728
Total	845, 134	205, 732	55, 500	11, 100	2, 363, 289	773, 362

NOTE.—Of the number of persons fishing for seed oysters, a total of 2,654 are duplicated among those fishing for market oysters or other species. Similarly, the following craft and gear are duplicated: 93 vessels, 527 motor boats, 267 other boats, 168 dredges, 1,017 tongs, and 196 rakes.

Yield of the fisheries of the United States: By gear

Gear	New England, 1935		Middle Atlantic, 1935		Chesapeake, 1936	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Purse seines	87, 259, 900	$1, 249, 300	175, 514, 600	$492, 484	165, 853, 200	$912, 195
Haul seines	780, 400	37, 580	1, 739, 800	76, 005	5, 678, 100	149, 587
Gill nets	29, 674, 200	609, 943	2, 867, 900	183, 821	1, 416, 700	109, 659
Lines	87, 788, 200	2, 022, 257	6, 848, 900	327, 926	33, 245, 700	736, 793
Pound nets	22, 956, 200	265, 206	42, 022, 600	994, 073	55, 296, 200	889, 397
Floating traps	11, 952, 300	233, 815	----------	----------	----------	----------
Other traps	37, 000	3, 135	----------	----------	8, 400	334
Weirs	21, 250, 500	104, 281	1, 392, 000	2, 508	----------	----------
Stop nets	----------	----------	156, 800	11, 120	92, 000	3, 304
Fyke nets	146, 900	8, 258	408, 600	21, 491	839, 900	39, 043
Dip nets	2, 796, 800	83, 188	[1] 703, 700	[1] 113, 066	2, 319, 300	252, 102
Cast nets	----------	----------	2, 600	185	----------	----------
Scap nets	----------	----------	119, 700	4, 423	----------	----------
Bag nets	146, 600	17, 080	----------	----------	----------	----------
Drag nets	----------	----------	11, 700	2, 800	----------	----------
Push nets	14, 400	4, 800	----------	----------	----------	----------
Otter trawls	344, 801, 900	7, 585, 204	19, 067, 900	803, 090	7, 945, 800	189, 374
Pots	14, 273, 400	2, 597, 879	1, 966, 100	209, 422	379, 700	18, 251
Harpoons	3, 246, 000	428, 837	42, 600	8, 850	----------	----------
Spears	28, 300	2, 556	90, 200	11, 229	----------	----------
Scrapes, crab	----------	----------	----------	----------	1, 556, 300	114, 149
Dredges	12, 987, 900	1, 604, 006	18, 015, 200	2, 045, 705	15, 345, 400	913, 663
Tongs	2, 467, 000	279, 512	2, 996, 800	477, 449	22, 108, 300	1, 918, 555
Rakes	1, 271, 800	161, 058	3, 059, 900	420, 181	1, 227, 500	116, 790
Forks	705, 200	39, 497	529, 600	91, 691	----------	----------
Hoes	10, 562, 500	608, 372	1, 055, 900	69, 878	----------	----------
Picks	----------	----------	----------	----------	238, 700	55, 870
Gaffs	----------	----------	500	25	----------	----------
By hand	283, 000	37, 830	824, 500	48, 242	543, 600	68, 575
Total	655, 430, 400	17, 983, 594	279, 438, 100	6, 415, 664	314, 094, 800	6, 487, 641

Gear	South Atlantic and Gulf, 1936		Pacific, 1936		Lakes, 1936	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Purse seines	233, 187, 900	$931, 240	1, 309, 626, 200	$7, 835, 965	----------	----------
Haul seines	45, 444, 000	1, 412, 257	4, 966, 500	280, 292	5, 006, 400	$161, 857
Gill nets	54, 353, 100	2, 117, 295	34, 782, 900	1, 744, 375	41, 029, 600	3, 178, 274
Trammel nets	8, 477, 600	418, 393	1, 395, 000	97, 855	141, 400	2, 874
Lines	49, 275, 100	1, 508, 290	188, 539, 500	9, 613, 771	2, 061, 200	302, 316
Pound nets	19, 441, 200	448, 529	1, 282, 900	70, 737	7, 603, 100	453, 358
Other traps	231, 900	29, 822	8, 914, 100	772, 007	33, 937, 500	2, 082, 700
Weirs	----------	----------	843, 600	7, 761	----------	----------
Wheels	70, 500	1, 330	----------	----------	----------	----------
Fyke nets	441, 000	13, 879	380, 300	39, 173	3, 108, 700	167, 927
Dip nets	2, 299, 400	84, 719	4, 523, 100	222, 631	----------	----------
Drag-bag nets	----------	----------	1, 772, 400	25, 026	----------	----------
Cast nets	438, 600	21, 389	----------	----------	----------	----------
Push nets	[2] 4, 300	[2] 720	----------	----------	----------	----------
Reef nets	----------	----------	273, 800	15, 933	----------	----------
Lampara and ring nets	----------	----------	337, 403, 000	2, 260, 902	----------	----------
Paranzella nets	----------	----------	11, 452, 200	591, 282	----------	----------
Otter trawls	117, 685, 500	3, 731, 954	5, 815, 900	120, 129	----------	----------
Beam trawls	----------	----------	601, 500	25, 337	----------	----------
Pots	1, 771, 400	62, 765	----------	----------	41, 500	4, 150
Harpoons	----------	----------	3, 370, 400	146, 092	----------	----------
Spears	536, 800	38, 870	----------	----------	----------	----------
Dredges	10, 138, 900	659, 209	(3)	(3)	----------	----------
Tongs	8, 107, 000	673, 883	8, 738, 600	919, 530	----------	----------
Crowfoot bars	----------	----------	----------	----------	913, 800	22, 500
Rakes	868, 800	82, 171	(3)	(3)	----------	----------
Forks	7, 400	777	----------	----------	----------	----------
Grabs	1, 911, 600	96, 050	----------	----------	----------	----------
Picks	----------	----------	----------	----------	310, 600	10, 313
Hooks	140, 000	185, 011	----------	----------	----------	----------
Diving apparatus, abalone and sponge	358, 500	920, 758	660, 400	92, 711	----------	----------
By hand	1, 802, 200	102, 990	----------	----------	122, 700	3, 174
Total	556, 992, 700	13, 542, 301	1, 925, 342, 300	24, 881, 509	94, 276, 500	6, 389, 443

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[1] Includes the catch by drop nets and wire baskets.
[2] This catch was made by scoop nets.
[3] The catch by shovels, rakes, and dredges is included with tongs.

Yield of the fisheries of the United States: By gear—Continued

Gear	Mississippi River and tributaries, 1931		Total	
	Pounds	*Value*	*Pounds*	*Value*
Purse seines	----------	----------	1, 971, 441, 800	$11, 421, 184
Haul seines	13, 739, 657	$574, 541	77, 354, 857	2, 692, 119
Gill nets	166, 598	6, 547	164, 290, 998	7, 949, 914
Trammel nets	1, 134, 206	75, 615	11, 148, 206	594, 737
Lines	10, 140, 037	772, 245	377, 898, 637	15, 283, 598
Pound nets	224, 275	9, 541	148, 826, 475	3, 130, 841
Floating traps	----------	----------	11, 952, 300	233, 815
Other traps	----------	----------	43, 128, 900	2, 887, 998
Weirs	----------	----------	23, 486, 100	114, 550
Wheels	----------	----------	70, 500	1, 330
Stop nets	----------	----------	248, 800	14, 424
Fyke nets	18, 507, 204	797, 130	23, 832, 604	1, 086, 901
Dip nets	30, 045	3, 307	12, 672, 345	759, 013
Drag-bag nets	----------	----------	1, 772, 400	25, 026
Cast nets	----------	----------	441, 200	21, 574
Scap nets	----------	----------	119, 700	4, 423
Bag nets	----------	----------	146, 600	17, 080
Drag nets	----------	----------	11, 700	2, 800
Push nets	----------	----------	18, 700	5, 520
Reef nets	----------	----------	273, 800	15, 933
Lampara and ring nets	----------	----------	337, 403, 000	2, 260, 902
Paranzella nets	----------	----------	11, 452, 200	591, 282
Otter trawls	----------	----------	495, 317, 000	12, 429, 751
Beam trawls	----------	----------	601, 500	25, 337
Pots	[4] 310, 455	[4] 26, 277	18, 742, 555	2, 918, 744
Harpoons	----------	----------	6, 659, 000	583, 779
Spears	2, 250	270	657, 550	52, 925
Scrapes, crab	----------	----------	1, 556, 300	114, 149
Dredges	3, 699, 100	40, 958	60, 186, 500	5, 263, 541
Tongs	1, 601, 876	21, 091	46, 019, 576	4, 290, 020
Crowfoot bars	20, 893, 550	265, 443	21, 807, 350	287, 943
Rakes	370, 130	4, 029	6, 798, 130	784, 229
Forks	4, 812, 737	76, 214	6, 054, 937	208, 179
Hoes	----------	----------	11, 618, 400	678, 250
Grabs	873, 099	130, 621	2, 784. 699	226, 671
Picks	----------	----------	549, 300	66, 183
Hooks	----------	----------	140, 000	185, 011
Diving apparatus, abalone and sponge	----------	----------	1, 018, 900	1, 013, 469
Gaffs	----------	----------	500	25
By hand	5, 877, 304	93, 528	9, 453, 304	354, 339
Total	82, 382, 523	2, 897, 357	3, 907, 957, 323	78, 597, 509

[4] Includes the catch by baskets.

Industries related to the fisheries of the United States and Alaska

Item	New England, 1935	Middle Atlantic, 1935	Chesapeake, 1936	South Atlantic and Gulf, 1936
Transporting:				
Persons engaged:	*Number*	*Number*	*Number*	*Number*
On vessels	124	69	1, 181	339
On boats	18	72	----------	295
Total	142	141	1, 181	634
Vessels:				
Motor	50	23	486	141
Net tonnage	909	378	5, 919	1, 366
Sail	----------	----------	1	34
Net tonnage	----------	----------	47	332
Total vessels	50	23	487	175
Total net tonnage	909	378	5, 966	1, 698
Boats	15	63	----------	231
Wholesale and manufacturing:				
Establishments	380	408	585	703
Persons engaged:				
Proprietors	265	302	745	722
Salaried employees	718	1, 071	392	557
Wage earners:				
Average for season	9, 578	4, 770	11, 526	15, 816
Average for year	5, 501	3, 485	4, 486	4, 701
Salaries and wages paid	$6, 456, 456	$6, 666, 507	$3, 073, 443	$3, 296, 241
Manufactured products [4]	[5] $25, 476, 907	[5] $14, 691, 923	$9, 813, 684	$11, 445, 674
Fishermen's manufactured products:				
Persons engaged	3, 792	558	97	1, 316
Products [4]	$680, 020	$378, 741	$8, 325	$143, 784

[4] Includes packaged, cured, and canned fishery products, and byproducts.
[5] Includes data for 1936 on packaged and canned products and byproducts.

Industries related to the fisheries of the United States and Alaska—Continued

Item	Pacific, 1936	Lakes, 1936	Mississippi River and tributaries, 1931	Alaska, 1936	Total for the various years
Transporting:					
Persons engaged:	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	206	14	29	2,064	4,026
On boats	-----	-----	-----	(1)	385
Total	206	14	29	2,064	4,411
Vessels:					
Steam	1	-----	-----	9	10
Net tonnage	32	-----	-----	21,551	21,583
Motor	78	8	8	429	1,223
Net tonnage	1,659	115	104	13,468	23,918
Sail	-----	-----	-----	-----	35
Net tonnage	-----	-----	-----	-----	379
Total vessels	79	8	8	438	1,268
Total net tonnage	1,691	115	104	35,019	45,880
Boats	-----	-----	-----	[2] 776	1,085
Wholesale and manufacturing:					
Establishments	339	214	217	249	3,095
Persons engaged:					
Proprietors	349	154	204	16,597	87,307
Salaried employees	1,054	448	355		
Wage earners:					
Average for season	15,186	2,223	4,275		
Average for year	5,666	1,178	3,483	(3)	(3)
Salaries and wages paid	$9,365,375	$2,439,107	$3,080,430	(3)	(3)
Manufactured products [4]	[5] $52,498,170	$2,660,163	[5] $4,002,120	$48,641,265	$169,229,906
Fishermen's manufactured products:					
Persons engaged	278	480	216	(3)	(3)
Products [4]	$232,009	$51,438	$8,751	(3)	(3)

[1] Included in vessels.

[2] Includes scows, houseboats, pile drivers, etc.

[3] Statistics not available.

[4] Includes packaged, cured, and canned fishery products, and byproducts.

[5] Includes data for 1936 on packaged and canned products and byproducts.

NOTE.—Of the total number of persons engaged in the preparation of fishermen's manufactured products, 6,203 have also been included as fishermen, and 1,235 of the persons shown on transporting craft have also been included as fishermen.

MANUFACTURED FISHERY PRODUCTS

The output of manufactured fishery products (canned, cured, packaged, and byproducts) in the United States and Alaska during the most recent years for which data are available were valued at $172,051,188. Of this amount, canned products accounted for 55 percent, byproducts 20 percent, fresh and frozen packaged products 16 percent, and cured products 9 percent.

Since general statistical surveys were conducted in only the Chesapeake Bay, South Atlantic, Gulf, Lakes, and Pacific States, and Alaska for 1936, the following compilation of manufactured fishery products consists of composite data, based on the most recent statistics. The years covered by the data are indicated by footnotes.

Manufactured fishery products of the United States and Alaska[1]

Item	Quantity	Value
Alewives:		
Salted:		
Corned .... pounds	7,760,200	$76,201
Pickled .... do	[2] 3,766,710	92,938
Tight-pack [3] .... do	1,536,880	37,985
Tight-pack cut .... do	979,640	38,346
Smoked [4] .... do	198,338	8,116
Canned .... standard cases	24,140	58,527
Roe, canned .... do	32,985	232,783
Dry scrap .... tons	557	16,502
Oil .... gallons	6,550	1,363
Barracuda, fresh fillets .... pounds	860,000	107,500
Buffalofish, smoked [5] .... do	885,300	220,595
Butterfish, smoked [5] .... do	730,876	189,487
Cabrilla, fresh fillets .... do	60,000	8,400
Cabrilla, dry salted .... do	5,186	467
Carp, smoked [5] .... do	213,645	39,994
Chubs, cisco, and tullibees, smoked [5] .... do	6,815,906	1,894,347
Cod:		
Fresh fillets .... do	9,458,021	1,093,265
Frozen fillets .... do	8,057,162	766,125
Fresh sticks .... do	380,607	35,807
Salted:		
Green [4] .... do	[2] 8,565,639	450,458
Dry [4] .... do	2,249,212	141,144
Boneless and absolutely boneless [4] .... do	7,950,957	1,491,780
Tongues .... do	12,250	986
Pickled .... do	80,769	2,821
Smoked fillets [3] .... do	1,043,598	152,181
Stockfish .... do	9,355	1,304
Oil:		
Cod .... gallons	17,542	7,049
Cod liver .... do	281,374	170,779
Croaker, fresh fillets .... pounds	232,182	28,278
Cusk:		
Fresh fillets .... do	711,601	70,010
Frozen fillets .... do	240,609	20,349
Fresh sticks .... do	466,399	49,074
Salted, green [3] .... do	[2] 74,040	2,492
Smoked fillets [3] .... do	82,005	10,801
Drum, black and red, fresh fillets and steaks .... do	10,862	1,685
Eels:		
Salted .... do	107,240	8,195
Smoked [5] .... do	112,053	31,173
Flounders:		
Fresh fillets .... do	4,925,761	772,272
Frozen fillets .... do	924,726	133,787
Grayfish, fresh fillets .... do	110,000	11,000
Groupers:		
Fresh fillets .... do	32,900	5,410
Fresh steaks .... do	359,804	56,120
Haddock:		
Fresh fillets .... do	18,368,725	2,110,526
Frozen fillets .... do	22,795,346	2,151,557
Fresh sticks .... do	22,850	4,108
Salted, green [3] .... do	[2] 26,850	541
Finnan haddie [3] .... do	355,000	45,014
Hake:		
Fresh fillets .... do	1,432,262	133,797
Frozen fillets .... do	2,030,712	137,280
Fresh sticks .... do	439,535	44,529
Salted:		
Green [3] .... do	[2] 1,892,855	55,769
Dry [3] .... do	2,087,892	97,450
Boneless and absolutely boneless [3] .... do	1,259,122	94,928
Smoked fillets [3] .... do	78,245	9,968
Halibut:		
Fresh fillets .... do	57,920	17,326
Frozen steaks .... do	271,530	40,525
Herring, lake:		
Fresh fillets .... do	212,778	21,410
Salted fillets .... do	4,576,835	173,478
Smoked fillets .... do	846,369	74,221
Herring, sea:		
Salted:		
Pickled (for bait) .... do	586,200	6,000
Pickled and spiced [4] .... do	662,200	50,869
Roused .... do	66,800	11,597
Scotch cure .... do	11,413,225	538,211
Norwegian cure .... do	2,125	92
Split [3] .... do	1,085,787	35,848

See footnotes at end of table.

Manufactured fishery products of the United States and Alaska—Continued

Item	Quantity	Value
Herring, sea—Continued.		
Smoked:		
Bloaters, hard [3]...pounds	378, 180	$25, 863
Bloaters, soft [3]...do	834, 346	75. 173
Bloaters, unclassified [4]...do	518, 276	73, 341
Boneless [3]...do	2, 603, 604	275, 654
Lengthwise [3]...do	117, 105	7, 083
Medium scaled [3]...do	351, 550	23, 388
Kippered [3]...do	275, 120	34, 394
Canned "sardines"...standard cases	1, 845, 860	5, 740, 454
Meal...tons	16, 780	593, 357
Oil...gallons	3, 796, 586	954, 706
Lake trout:		
Fresh fillets...pounds	18, 066	4, 153
Salted [6]...do	27. 100	2, 565
Smoked [4]...do	797, 464	214, 263
"Lingcod," fresh fillets...do	232, 000	28, 900
Mackerel:		
Fresh fillets...do	132, 166	12, 713
Frozen fillets...do	392, 189	38, 230
Salted:		
Fillets [3]...do	1, 874, 480	152, 083
Split [3]...do	2, 477, 507	196, 832
Smoked [4]...do	564, 544	84, 288
Canned...standard cases	1, 236, 850	3, 542, 895
Meal...tons	3, 025	90, 254
Oil...gallons	191, 753	63, 454
Menhaden:		
Acid scrap...tons	23, 482	359, 615
Dry scrap...do	34, 834	1, 148, 416
Meal...do	7, 577	263, 294
Oil...gallons	4, 880, 879	1, 249, 708
Mullet:		
Salted...pounds	2, 004, 500	111, 470
Roe, salted...do	23, 850	5, 653
Smoked...do	15, 550	2, 743
Paddlefish or spoonbill cat:		
Roe, salted [7]...do	1, 595	812
Smoked [8]...do	334, 500	135, 045
Pike, pickerel, and sauger:		
Fresh fillets...do	4, 528, 569	947, 206
Frozen fillets...do	300, 762	68, 803
Smoked...do	200	30
Pilchard:		
Canned "sardines"...standard cases	2, 616, 530	7, 302, 273
Meal...tons	121, 739	3, 968, 305
Oil...gallons	26, 131, 439	8, 336, 079
Pollock:		
Fresh fillets...pounds	2, 365, 566	170, 995
Frozen fillets...do	12, 571, 911	799, 117
Fresh sticks...do	48, 000	3, 810
Salted:		
Green [3]...do	[2] 118, 946	4, 253
Dry [3]...do	203, 497	12, 097
Rockfishes, fresh fillets...do	950, 000	122, 000
Rosefish:		
Fresh fillets...do	3, 941, 008	374, 187
Frozen fillets...do	11, 580, 471	1, 139, 629
Sablefish:		
Fresh fillets...do	165, 000	17, 800
Kippered...do	477, 142	80, 630
Pickled...do	134, 730	5, 017
Salted...do	276, 897	15, 036
Smoked [6]...do	94, 740	27, 570
Sailfish, smoked...do	18, 000	3, 600
Salmon:		
Fresh and frozen, fillets and steaks...do	13, 778	2, 619
Salted:		
Dry...do	30, 100	4, 035
Pickled...do	872, 915	96, 510
Mild cured...do	11, 550, 402	2, 245, 316
Caviar...do	121, 208	11, 191
Dried...do	1, 442, 000	57, 680
Kippered [4]...do	2, 705, 408	541, 907
Smoked [5]...do	8, 752, 891	2, 655, 837
Canned:		
Blueback, red, or sockeye...standard cases	2, 571, 227	21, 924, 089
Chinook or king...do	278, 151	3, 429. 814
Chum or keta...do	1, 244, 957	4, 465, 074
Humpback or pink...do	4, 559, 964	17, 979, 145
Silver or coho...do	291, 596	2, 058, 309

See footnotes at end of table.

Manufactured fishery products of the United States and Alaska—Continued

Item	Quantity	Value
Salmon—Continued.		
Canned—Continued.		
Steelhead trout...standard cases	19, 282	$204, 640
Eggs for bait...do	2, 992	60, 670
Eggs for food...do	2, 149	44, 997
Meal...tons	1, 657	55, 128
Oil:		
Edible...gallons	13, 372	20, 058
Industrial...do	132, 620	39, 243
Sea bass:		
Fresh fillets (Atlantic coast)...pounds	117, 500	19, 165
Black, fresh steaks (Pacific coast)...do	240, 000	29, 100
White, fresh fillets (Pacific coast)...do	165, 000	28, 325
Shad:		
Kippered and smoked [4]...do	178, 892	33, 976
Canned...standard cases	17, 345	46, 805
Roe, canned...do	3, 604	113, 087
Shark:		
Fins...pounds	4, 412	2, 043
Oil...gallons	1, 250	286
Liver oil...do	2, 860	1, 010
Sheepshead:		
Fresh fillets...pounds	96, 652	8, 487
Smoked [7]...do	617	77
Snapper:		
Mangrove and red, fresh fillets...do	98, 762	29, 400
Red, fresh steaks...do	16, 800	3, 510
Spanish mackerel:		
Fresh fillets...do	24, 419	4, 092
Salted...do	97, 000	4, 920
Spot, salted...do	323, 500	13, 655
Squeteagues or "sea trout", fresh fillets...do	410, 861	56, 900
Sturgeon:		
Roe, salted [6]...do	760	1, 400
Smoked and kippered [5]...do	1, 686, 204	1, 070, 856
Caviar, canned...standard cases	3, 112	426, 254
Suckers, smoked...pounds	500	75
Swordfish, fresh and frozen steaks...do	475, 073	107, 167
Totuava, fresh steaks...do	675, 000	108, 000
Tuna and tunalike fishes:		
Canned:		
Albacore...standard cases	63, 120	418, 003
Bluefin...do	314, 019	1, 633, 701
Bonito...do	131, 137	577, 098
Striped...do	428, 848	2, 215, 513
"Tonno"...do	172, 326	1, 212, 103
Yellowfin...do	1, 437, 236	8, 079, 499
Yellowtail...do	134, 048	579, 474
Meal...tons	8, 822	269, 155
Oil...gallons	166, 161	34, 767
White bass, fresh fillets...pounds	19, 857	2, 883
Whitefish:		
Fresh fillets...do	34, 487	8, 045
Smoked [5]...do	2, 525, 377	723, 043
Caviar, canned...standard cases	1, 867	54, 358
Whiting:		
Frozen fillets...pounds	2, 518, 628	122, 381
Frozen sticks...do	6, 278, 613	314, 438
Fresh and frozen, split, butterfly...do	149, 775	8, 350
Smoked [3]...do	350	35
Wolffish:		
Fresh fillets...do	22, 666	2, 549
Frozen fillets...do	175, 860	18, 847
Yellow perch:		
Fresh fillets...do	377, 286	89, 693
Frozen fillets...do	8, 981	2, 396
Smoked...do	200	30
Crabs, hard:		
Meat, packaged, fresh cooked [4]...do	7, 095, 033	2, 535, 247
Canned...standard cases	7, 300	130, 753
Dry scrap...tons	1, 644	32, 650
Crabs, king, dry scrap...do	603	21, 515
Lobsters, common, packaged, fresh cooked [3]...pounds	121, 004	129, 515
Shrimp:		
Fresh packaged...do	467, 407	159, 420
Frozen packaged...do	3, 722, 100	432, 592
Cooked and peeled...do	673, 454	206, 165
Sun dried...do	1, 836, 631	320, 106
Canned...standard cases	917, 440	4, 672, 198
Bran or meal...tons	1, 896	37, 471
Abalone steaks...pounds	656, 700	199, 402

See footnotes at end of table.

Manufactured fishery products of the United States and Alaska—Continued

Item	Quantity	Value
Clams, hard:		
Fresh shucked [4] ... gallons	44,729	$61,457
Canned:		
Whole ... standard cases	29,872	142,280
Minced ... do	32,331	161,838
Juice ... do	10,138	33,655
Chowder ... do	404,676	1,387,154
Broth, bouillon, and cocktail ... do	8,973	42,098
Shells, ground, poultry feed ... tons	1,419	14,280
Clams, razor:		
Fresh shucked [3] ... gallons	30,915	13,132
Canned:		
Whole ... standard cases	3,751	32,401
Minced ... do	61,815	496,799
Juice ... do	120	476
Clams, soft:		
Fresh shucked [3] ... gallons	254,856	274,951
Steamed [3] ... pounds	[3] 228,873	19,494
Canned:		
Whole ... standard cases	105,672	373,773
Chowder ... do	79,185	271,767
Juice ... do	15,875	24,595
Clams, mixed, fresh shucked ... gallons	3,440	3,784
Marine-shell products:		
Buttons ... gross	5,764,824	3,565,744
Novelties	---	700,242
Mussels, fresh water, shell products:		
Buttons ... gross	18,020,811	4,621,371
Poultry feed ... tons	4,723	25,744
Lime ... do	1,966	1,736
Oysters:		
Eastern:		
Fresh shucked [4] ... gallons	6,310,708	8,549,809
Canned ... standard cases	409,852	1,676,599
Japanese:		
Fresh shucked ... gallons	423,066	519,997
Canned ... standard cases	118,853	504,270
Native, Pacific, fresh shucked ... gallons	24,440	178,988
Soup, canned (Eastern and Japanese) ... standard cases	35,430	181,201
Shell products:		
Poultry feed ... tons	300,128	1,245,553
Lime and dust ... do	72,354	246,141
Lime, burned ... do	9,802	72,134
Scallops, bay, fresh shucked [4] ... gallons	191,100	514,097
Scallops, sea, fresh shucked [3] ... do	381,954	485,178
Squid, canned ... standard cases	8,068	30,708
Alligator hides [7] ... pounds	88,356	7,363
Terrapin products, canned ... standard cases	219	14,497
Turtle products, canned ... do	4,129	68,500
Whale products:		
Meal, meat ... tons	789	28,404
Meal, bone ... do	395	9,480
Oil, whale ... gallons	3,953,668	1,658,419
Oil, sperm ... do	201,298	49,142
Unclassified products:		
Fillets, fresh ... pounds	[9] 177,564	[9] 24,323
Fillets, frozen ... do	[10] 78,450	[10] 12,155
Steaks, fresh ... do	[11] 59,009	[11] 7,343
Miscellaneous, packaged, fresh and frozen [4] ... do	[12] 437,792	[12] 52,826
Salted [4] ... do	[13] 1,310,561	[13] 148,962
Smoked [4] ... do	[14] 232,616	[14] 31,391
Canned:		
Fish for cat and dog food ... standard cases	267,425	743,968
Fish cakes, balls, etc ... do	88,926	641,268
Fish chowder ... do	1,879	11,590
Fish flakes ... do	27,210	234,091
Fish pudding (salmon) ... do	75	500
Other ... do	[15] 25,417	[15] 287,710
Acid and dry scrap ... tons	[16] 1,594	[16] 36,191
Meal:		
Groundfish (white fish) ... do	14,188	619,900
Miscellaneous ... do	[17] 4,196	[17] 146,761
Oil:		
Fur seal ... gallons	23,669	7,229
Liver, miscellaneous ... do	[18] 67,166	[18] 2,724,866
Miscellaneous ... do	[19] 33,631	[19] 10,308

See footnotes at end of table.

Manufactured fishery products of the United States and Alaska—Continued

Item	Quantity	Value
Unclassified products—Continued.		
Glue ..... gallons	433,412	$902,264
Other byproducts		[20] 546,868
Total, fresh and frozen packaged products ..... pounds	202,395,954	26,894,905
Total, cured products ..... do	116,310,859	15,615,682
Total, canned products ..... do	794,707,014	94,564,254
Total, byproducts		34,976,347
Grand total		172,051,188

[1] Data are for 1936 unless otherwise indicated.

[2] This is usually an intermediate product and although shown in the total may also be shown in its final stage of processing elsewhere in the table.

[3] Data are for 1935.

[4] This item represents a combination of 1936 and 1935 data.

[5] This item represents a combination of 1936, 1935, and 1931 data.

[6] This item represents a combination of 1936 and 1931 data.

[7] Data are for 1931.

[8] This item represents a combination of 1935 and 1931 data.

[9] Includes fresh fillets of amberjack, bluefish, catfish and bullheads, jewfish, kingfish or "king mackerel," king whiting or "kingfish," mullet, scup or porgy, sea robin, snook or sergeantfish, spot, suckers, tripletail, tullibees, and whiting.

[10] Includes frozen fillets of bluefish, halibut, lake herring, and squeteagues or "sea trout."

[11] Includes fresh steaks of cabio, cod, haddock, halibut, pollock, sea bass (Atlantic coast), and snook or sergeantfish.

[12] Includes frozen steaks of cod, pollock, and wolffish; packaged fresh-cooked spiny lobster meat; and fresh-shucked sea mussels.

[13] Includes salted barracuda, bluefish, blue runner, chubs, cod strips and bits, haddock, salmon bellies, sea herring, black sea bass, pilchard, tenpounder, tuna, and yellowtail; tight-pack alewife roe; boneless cusk, mild-cured shad; pickled shrimp; and salted fillets of hake, sea herring, and Spanish mackerel.

[14] Includes smoked bluefish, cod, red drum, flounders, goldfish, goosefish, haddock, smelt, swordfish, tuna, fillets of haddock and sea herring, sea herring roe, and spiced salmon.

[15] Includes canned Alaska salted cod, pickled eels, finnan haddie, smoked salmon, kippered sturgeon, fresh-water crawfish, shrimp soup, hard clams steamed in the shell, hard clam stew, soft clam cakes, coquina clam broth, pickled sea mussels, frogs and frog legs, deep sea roe, rat poison bait, fish paste and bouillon, and crab and shrimp gumbo.

[16] Includes sea herring and groundfish (white fish), dry scrap, and miscellaneous acid and dry scrap.

[17] Includes burbot, tullibee, salmon-egg, abalone, soft clam, cod-liver, and miscellaneous fish meals.

[18] Includes burbot-, halibut-, "lingcod-," sablefish-, swordfish-, totuava-, and tuna-liver oils.

[19] Includes rosefish and miscellaneous fish oils.

[20] Includes isinglass, kelp products, pearl essence, shark skins, and fresh-water mussel-shell novelties, stucco, and chips.

NOTE.—Some of the above products have been manufactured from products imported from another country; therefore, they cannot be correlated directly with the catch within the United States and Alaska.

CANNED FISHERY PRODUCTS AND BYPRODUCTS TRADE

The output of canned fishery products and byproducts in the United States and Alaska in 1936 was valued at $129,533,238. Of this total, canned products comprised $94,564,254, and byproducts, $34,968,984—an increase of 26 percent in the value of canned products and 18 percent in the value of byproducts when compared with the respective values of the same groups of commodities for the previous year.

Fishery products were canned at 412 establishments in the United States and Alaska during 1936. The combined output of these canneries amounted to 20,097,976 standard cases. The net weight of the products canned amounted to 794,707,014 pounds.

Canned fishery products or byproducts were prepared in 25 States and in Alaska during 1936. Alaska ranked first in the value of the products, accounting for 36 percent of the total, and California ranked second, with 31 percent.

Canned fishery products and byproducts of the United States and Alaska, 1936

SUMMARY OF PRODUCTION: By commodities

Product	Number of plants	Standard cases	Pounds	Value
Canned products:				
Salmon:				
United States	26	527, 574	25, 323, 552	$5, 309, 438
Alaska	117	8, 437, 603	405, 004, 944	44, 751, 633
Sardines:				
Maine	24	1, 845, 860	46, 146, 500	5, 740, 454
California	31	2, 616, 530	125, 593, 440	7, 302, 273
Tuna and tunalike fishes	16	2, 680, 734	64, 337, 616	14, 715, 391
Mackerel	30	1, 236, 850	59, 368, 800	3, 542, 895
Alewives	6	24, 140	1, 158, 720	58, 527
Alewife roe	31	32, 985	1, 583, 280	232, 783
Shad	10	17, 345	832, 560	46, 805
Shad roe	8	3, 604	172, 992	113, 087
Fish flakes	3	27, 210	1, 306, 080	234, 091
Fish cakes, balls, etc	6	88, 926	4, 268, 448	641, 268
Cat and dog food	8	267, 425	12, 836, 400	743, 968
Sturgeon caviar	5	3, 112	149, 376	426, 254
Whitefish roe and caviar	5	1, 867	89, 616	54, 358
Salmon roe and caviar (for food)	4	2, 149	103, 152	44, 997
Salmon eggs (for bait)	8	2, 992	143, 616	60, 670
Miscellaneous fish and roe	13	20, 066	963, 168	263, 350
Clam products	58	[1] 754, 334	19, 123, 095	2, 976, 297
Oysters	52	528, 705	7, 930, 575	2, 180, 869
Oyster soup	5	35, 430	1, 700, 640	181, 201
Shrimp	61	917, 440	15, 365, 884	4, 672, 198
Crabs	14	7, 300	350, 400	130, 753
Squid	3	8, 068	387, 264	30, 708
Turtle products	4	4, 129	198, 192	68, 500
Miscellaneous shellfish, etc	12	5, 598	268, 704	41, 486
Total	[2] 412	20, 097, 976	794, 707, 014	94, 564, 254
Byproducts			*Quantity*	*Value*
Oyster and marine clam-shell products ... tons			383, 703	1, 578, 108
Fresh-water mussel-shell products				4, 710, 260
Marine pearl-shell products				4, 265, 986
Scrap, meal, etc ... tons			243, 778	7, 696, 398
Marine-animal oils ... gallons			39, 901, 818	15, 328, 466
Miscellaneous byproducts				1, 389, 766
Total				34, 968, 984
Grand total				129, 533, 238

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[1] "Cutout" or "drained" weights of can contents are included for whole or minced clams, and gross can contents for other clam products.

[2] Exclusive of duplication.

VALUE OF PRODUCTION: By States

State	Canned products	Byproducts	Total
Maine	$6, 609, 060	$329, 238	$6, 938, 298
Massachusetts	1, 117, 229	2, 398, 722	3, 533, 255
Rhode Island		17, 304	
Connecticut		1, 159, 719	1, 159, 719
New York	659, 528	3, 003, 062	3, 662, 590
New Jersey	1, 293, 945	1, 912, 293	3, 457, 723
Pennsylvania		251, 485	
Delaware		232, 483	232, 483
Maryland	260, 965	1, 168, 270	1, 429, 235
Virginia	129, 954	1, 825, 696	1, 955, 650
North Carolina	58, 628	552, 395	978, 861
South Carolina	367. 838		
Georgia	825, 402	752, 118	2, 055, 271
Florida	477. 751		
Alabama	190, 485	81, 762	2, 253, 242
Mississippi	1, 980, 995		
Louisiana	2, 354, 116	328, 773	2, 682, 889
Texas, Missouri, Wisconsin, and Minnesota	307, 445	197, 629	505, 074
Iowa		3, 672, 242	3, 672, 242
Washington	3, 582, 880	1, 080, 317	4, 663, 197
Oregon	2, 972, 959	263, 796	3, 236, 755
California	26, 296, 129	13, 893, 020	40, 189, 149
Alaska	45, 078, 945	1, 848, 660	46, 927, 605
Total	94, 564, 254	34, 968, 984	129, 533, 238

Canned fishery products and byproducts of the United States and Alaska, 1936—Con.

PACK OF CANNED SALMON: STANDARD CASES

Product	Alaska							
	Southeast		Central		Western		Total	
	Cases	*Value*	*Cases*	*Value*	*Cases*	*Value*	*Cases*	*Value*
Chinook or king:								
1-pound tall	15, 273	$103, 563	16, 401	$113, 381	4, 100	$27, 622	35, 774	$244, 566
1-pound flat	1, 102	10, 839	4, 414	43, 051	206	1, 886	5, 722	55, 776
½-pound flat	4, 130	40, 084	6, 258	72, 118	----------	----------	10, 388	112, 202
Total	20, 505	154, 486	27, 073	228, 550	4, 306	29, 508	51, 884	412, 544
Blueback, red, or sockeye:								
1-pound tall	160, 289	1, 293, 449	676, 644	5, 371, 035	1, 410, 300	11, 609, 419	2, 247, 233	18, 273, 903
1-pound flat	13, 591	135, 910	102, 492	935, 832	2, 007	18, 589	118, 090	1, 090, 331
½-pound flat	44, 127	477, 055	77, 693	949, 791	15, 399	184, 794	137, 219	1, 611, 640
Total	218, 007	1, 906, 414	856, 829	7, 256, 658	1, 427, 706	11, 812, 802	2, 502, 542	20, 975, 874
Silver or cobo:								
1-pound tall	128, 293	827, 483	83, 792	531, 146	1, 571	10, 552	213, 656	1, 369, 181
1-pound flat	2	14	1, 333	10, 082	----------	----------	1, 335	10, 096
½-pound flat	6, 427	59, 030	882	7, 761	----------	----------	7, 309	66, 791
Total	134, 722	886, 527	86, 007	548, 989	1, 571	10, 552	222, 300	1, 446, 068
Humpback or pink:								
1-pound tall	2, 889, 946	11, 456, 128	1, 601, 376	6, 174, 077	31, 066	123, 303	4, 522, 388	17, 753, 508
½-pound flat	35, 198	211, 367	2, 208	13, 379	----------	----------	37, 406	224, 746
Total	2, 925, 144	11, 667, 495	1, 603, 584	6, 187, 456	31, 066	123, 303	4, 559, 794	17, 978, 254
Chum or keta:								
1-pound tall	777, 653	2, 799, 016	295, 374	1, 034, 318	26, 556	97, 245	1, 099, 583	3, 930, 579
½-pound flat	686	3, 763	814	4, 551	----------	----------	1, 500	8, 314
Total	778, 339	2, 802, 779	296, 188	1, 038, 869	26, 556	97, 245	1, 101, 083	3, 938, 893
Grand total	4, 076, 717	17, 417, 701	2, 869, 681	15, 260, 522	1, 491, 205	12, 073, 410	8, 437, 603	44, 751, 633

Product	United States						Grand total, Alaska and United States	
	Washington		Oregon		Total			
	Cases	*Value*	*Cases*	*Value*	*Cases*	*Value*	*Cases*	*Value*
Chinook or king:								
1-pound tall	11, 796	$78, 571	6, 833	$33, 830	18, 629	$112, 401	54, 403	$356, 967
1-pound oval	102	2, 244	485	10, 670	587	12, 914	587	12, 914
1-pound flat	12, 558	143, 554	37, 972	428, 351	50, 530	571, 905	56, 252	627, 681
½-pound oval	2	48	55	1, 320	57	1, 368	57	1, 368
½-pound flat	37, 135	537, 011	106, 723	1, 556, 453	143, 858	2, 093, 464	154, 246	2, 205, 666
¼-pound flat	929	16, 183	11, 677	209, 035	12, 606	225, 218	12, 606	225, 218
Total	62, 522	777, 611	163, 745	2, 239, 659	226, 267	3, 017, 270	278, 151	3, 429, 814
Blueback, red, or sockeye:								
1-pound tall	----------	----------	----------	----------	----------	----------	2, 247, 233	18, 273, 903
1-pound oval	3	43	----------	----------	3	43	3	43
1-pound flat	27, 248	354, 224	156	2, 122	27, 404	356, 346	145, 494	1, 446, 677
½-pound flat	34, 917	501, 114	4, 416	61, 824	39, 333	562, 938	176, 552	2, 174, 578
¼-pound oval	4	83	----------	----------	4	83	4	83
¼-pound flat	1, 691	25, 205	250	3, 600	1, 941	28, 805	1, 941	28, 805
Total	63, 863	880, 669	4, 822	67, 546	68, 685	948, 215	2, 571, 227	21, 924, 089
Silver or coho:								
1-pound tall	3, 928	27, 496	827	5, 489	4, 755	32, 985	218, 411	1, 402, 166
1-pound oval	----------	----------	42	462	42	462	42	462
1-pound flat	8, 547	67, 058	11, 841	94, 728	20, 388	161, 786	21, 723	171, 882
½-pound oval	----------	----------	26	364	26	364	26	364
½-pound flat	17, 104	156, 923	17, 742	156, 130	34, 846	313, 053	42, 155	379, 844
¼-pound oval	18	316	----------	----------	18	316	18	316
¼-pound flat	5, 630	63, 056	3, 591	40, 219	9, 221	103, 275	9, 221	103, 275
Total	35, 227	314, 849	34, 069	297, 392	69, 296	612, 241	291, 596	2, 058, 309

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PACK OF CANNED SALMON: STANDARD CASES—Continued

Product	United States						Grand total, Alaska and United States	
	Washington		Oregon		Total			
	Cases	*Value*	*Cases*	*Value*	*Cases*	*Value*	*Cases*	*Value*
Humpback or pink:								
1-pound tall	78	$312	----------	----------	78	$312	4, 522, 466	$17, 753, 820
1-pound flat	6	29	----------	----------	6	29	6	29
½-pound flat	86	550	----------	----------	86	550	37, 492	225, 296
Total	170	891	----------	----------	170	891	4, 559, 964	17, 979, 145
Chum or keta:								
1-pound tall	104, 264	$380, 678	37, 049	$131, 177	141, 313	511, 855	1, 240, 896	4, 442, 434
1-pound flat	13	57	----------	----------	13	57	13	57
½-pound flat	854	4, 783	1, 694	9, 486	2, 548	14, 269	4, 048	22, 583
Total	105, 131	385, 518	38, 743	140, 663	143, 874	526, 181	1, 244, 957	4, 465, 074
Steelhead:								
1-pound tall	705	4, 935	617	4, 319	1, 322	9, 254	1, 322	9, 254
1-pound flat	1, 027	8, 216	3, 722	29, 776	4, 749	37, 992	4, 749	37, 992
½-pound oval	----------	----------	1, 810	26, 788	1, 810	26, 788	1, 810	26, 788
½-pound flat	628	6, 280	4, 846	48, 460	5, 474	54, 740	5, 474	54, 740
¼-pound flat	1, 375	17, 600	4, 552	58, 266	5, 927	75, 866	5, 927	75, 866
Total	3, 735	37, 031	15, 547	167, 609	19, 282	204, 640	19, 282	204, 640
Grand total	270, 648	2, 396, 569	256, 926	2, 912, 869	527, 574	5, 309, 438	8, 965, 177	50, 061, 071

NOTE.—"Standard cases" represents the various sized cases converted to the equivalent of 48 1-pound cans to the case. Salmon were canned at 19 plants in Washington, 7 in Oregon, and 117 in Alaska.

PACK OF CANNED SARDINES

Sardines (herring)	Maine	
	Cases	*Value*
Quarters, ¼-pound (100 cans):		
In olive oil	8, 522	$46, 180
In cottonseed oil	1, 594, 706	5, 007, 081
In mustard	128, 509	430, 896
In tomato sauce	10, 211	36, 651
Three-quarters, ¾-pound (48 cans):		
In mustard	72, 161	219, 646
Total	1, 814, 109	5, 740, 454
Total (standard cases)	1, 845, 860	------------

Sardines (pilchard)	California	
	Cases	*Value*
1-pound oval (48 cans):		
In mustard	373, 176	$991, 623
In tomato sauce	1, 246, 445	3, 317, 467
In natural oil	44, 810	119, 393
In other sauces or oils	11, 546	38, 546
½-pound oval (48 cans):		
In natural oil	40, 638	67, 041
1-pound tall (48 cans):		
In natural oil	468, 147	1, 025, 115
½-pound oblong (48 cans):		
In natural oil	92, 853	239, 771
5-ounce eastern oyster (100 cans):		
In tomato sauce	33, 684	87, 254
In natural oil	239, 861	624, 952
108-ounce (6 cans):		
In various sauces or oils	5, 224	11, 989
½-pound (96 cans):		
In natural oil	162, 670	467, 949
Other sizes:		
In various sauces or oils (standard cases)	60, 504	311, 173
Total	2, 779, 558	7, 302, 273
Total (standard cases)	2, 616, 530	----------

NOTE.—"Standard cases" represents the various sized cases converted to the uniform basis of 100 ¼-pound cans to the case of sardines (herring), and 48 1-pound cans to the case of sardines (pilchard). Sardines were canned at 24 plants in Maine and 31 in California.

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PACK OF CANNED TUNA AND TUNALIKE FISHES IN CALIFORNIA

Product and size	Albacore		Yellowfin		Bluefin		Striped	
	Cases	*Value*	*Cases*	*Value*	*Cases*	*Value*	*Cases*	*Value*
¼-pound (48 cans)	596	$2, 566	146, 528	$570, 432	27, 618	$104, 731	32, 835	$116, 196
½-pound (48 cans)	40, 463	280, 342	1, 035, 428	5, 931, 655	249, 585	1, 300, 773	368, 765	1, 900, 153
1-pound (48 cans)	[3] 8, 276	[3] 108, 111	[3] 89, 694	[3] 919, 701	15, 137	140, 599	19, 462	178, 895
Total (actual cases)	49, 335	391, 019	1, 271, 650	7, 421, 788	292, 340	1, 546, 103	421, 062	2, 195, 244
Total (standard cases)	57, 313		1, 288, 080		293, 668		424, 106	
Flakes:								
½-pound (48 cans)	[4] 3, 509	[4] 17, 455	[4] 117, 334	[4] 529, 580	16, 303	71, 524	[5] 4, 742	[5] 20, 269
1-pound (48 cans)	1, 149	9, 529	[6] 15, 911	[6] 128, 131	[6] 2, 024	[6] 16, 074	(5)	(5)
Total (actual cases)	4, 658	26, 984	133, 245	657, 711	18, 327	87, 598	4, 742	20, 269
Total (standard cases)	5, 807		149, 156		20, 351		4, 742	
Grand total (actual cases)	53, 993	418, 003	1, 404, 895	8, 079, 499	310, 667	1, 633, 701	425, 804	2, 215, 513
Grand total (standard cases)	63, 120		1, 437, 236		314, 019		428, 848	

Product and size	"Tonno"		Bonito		Yellowtail		Total	
	Cases	*Value*	*Cases*	*Value*	*Cases*	*Value*	*Cases*	*Value*
¼-pound (48 cans)			(7)	(7)	(4)	(4)	207, 577	$793, 925
¼-pound (100 cans)	154, 496	$1, 134, 026	[7] 4, 702	[7] $31, 748			159, 198	1, 165, 774
½-pound (48 cans)	[8] 11, 403	[8] 78, 077	96, 727	428, 641	[4] 95, 790	[4] $428, 406	1, 898, 161	10, 348, 047
1-pound (48 cans)	(8)	(8)	14, 756	116, 709	19, 129	151, 068	166, 454	1, 615, 083
Total (actual cases)	165, 899	1, 212, 103	116, 185	577, 098	114, 919	579, 474	2, 431, 390	13, 922, 829
Total (standard cases)	172, 326		131, 137		134, 048		2, 500, 678	
Flakes:								
½-pound (48 cans)							141, 888	638, 828
1-pound (48 cans)							19, 084	153, 734
Total (actual cases)							160, 972	792, 562
Total (standard cases)							180, 056	
Grand total (actual cases)	165, 899	1, 212, 103	116, 185	577, 098	114, 919	579, 474	2, 592, 362	14, 715, 391
Grand total (standard cases)	172, 326		131, 137		134, 048		2, 680, 734	

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[3] Includes the pack in 4-pound cans, 12 to the case, which has been converted to the equivalent of 1-pound cans, 48 to the case.

[4] The pack in ¼-pound cans, 48 to the case, has been converted to the equivalent of ½-pound cans, 48 to the case.

[5] The pack of flakes in 1-pound cans, 48 to the case, and creamed tuna in ¾-pound cans, 48 to the case, has been converted to the equivalent of ½-pound cans, 48 to the case.

[6] Includes the pack of creamed tuna in ¾-pound cans, 48 to the case, which has been converted to the equivalent of 1-pound cans, 48 to the case.

[7] The pack in ¼-pound cans, 48 to the case, has been converted to the equivalent of ¼-pound cans, 100 to the case.

[8] The pack in ½-pound cans, 50 to the case and in 1-pound cans, 48 to the case, has been converted to the equivalent of ½-pound cans, 48 to the case.

NOTE.—"Standard cases" represents the various sized cases converted to the equivalent of 48 ½-pound cans to the case. Tuna and tunalike fishes were canned at 16 plants in California.

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PACK OF CANNED MACKEREL

Size	Cases	Value
8-ounce (48 cans)	17,367	$51,408
8-ounce (96 cans)	62,111	196,562
16-ounce (48 cans)	[9] 1,158,794	[9] 3,223,001
Other sizes (standard cases)	7,262	71,924
Total (actual cases)	1,245,534	3,542,895
Total (standard cases)	1,236,850	----------

[9] Includes a small amount of mackerel chowder.

NOTE.—"Standard cases" represents the various sized cans converted to the equivalent of 48 1-pound cans to the case. Mackerel were canned at 1 plant in Maine, 1 in Massachusetts, and 28 in California.

PACK OF CANNED ALEWIVES AND ALEWIFE ROE: STANDARD CASES

Product	Maine and North Carolina		Maryland		Virginia		Total	
	Cases	*Value*	*Cases*	*Value*	*Cases*	*Value*	*Cases*	*Value*
Alewives	--------	--------	20,949	$50,438	3,191	$8,089	24,140	$58,527
Alewife roe	9,017	$60,308	7,024	51,610	16,944	120,865	32,985	232,783
Total	9,017	60,308	27,973	102,048	20,135	128,954	57,125	291,310

PACK OF CANNED ALEWIVES AND ALEWIFE ROE: ACTUAL CASES

Product and size	Cases	Value
Alewives; 14, 16, and 17 ounces (24 cans)	[10] 52,891	[10] $58,527
Alewife roe:		
8-ounce (48 cans)	17,422	62,704
10-ounce (48 cans)	833	3,534
16 and 17 ounce (24 cans)	[11] 44,932	[11] 166,545
Total	----------	232,783
Grand total	----------	291,310

[10] Includes the pack in 28-ounce cans, 24 to the case, which has been converted to the equivalent of 14-ounce cans, 24 to the case.

[11] Includes the pack in 18- and 19-ounce cans, 24 to the case, which has been converted to the equivalent of 16-ounce cans, 24 to the case.

NOTE.—"Standard cases" represents the various sized cases converted to the equivalent of 48 1-pound cans to the case. Alewives or alewife roe were canned at 1 plant in Maine, 8 in Maryland, 19 in Virginia, and 4 in North Carolina.

PACK OF CANNED OYSTERS: STANDARD CASES

State	Cases	Value	State	Cases	Value
New Jersey, Maryland, and Georgia	8,792	$35,549	Louisiana	57,567	$218,992
South Carolina	86,227	367,838	Washington	118,853	504,270
Florida and Alabama	34,734	133,322	Total	528,705	2,180,869
Mississippi	222,532	920,898			

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PACK OF CANNED OYSTERS: ACTUAL CASES

Size	Cases	Value	Size	Cases	Value
3½-ounce (48 cans)	20,848	$73,757	8-ounce (48 cans)	54,622	$347,035
4-ounce (48 cans)	15,233	60,130	10-ounce (24 cans)	39,449	166,271
5-ounce (48 cans)	362,324	1,472,411			
8-ounce (24 cans)	[12] 15,946	[12] 61,265	Total	----------	2,180,869

[12] Includes the pack in 6-ounce cans, 24 and 48 to the case, which has been converted to the equivalent of 8-ounce cans, 24 to the case.

NOTE.—"Standard cases" represents the various sized cases converted to the equivalent of 48 5-ounce cans to the case. Oysters were canned at 1 plant in New Jersey, 1 in Maryland, 5 in South Carolina, 1 in Georgia, 2 in Florida, 3 in Alabama, 15 in Mississippi, 10 in Louisiana, and 14 in Washington. The pack of oyster soup has not been included in the pack of oysters, but has been shown under "Pack of Miscellaneous Canned Fishery Products."

PACK OF CANNED CLAMS AND CLAM PRODUCTS: STANDARD CASES

Product and State	Whole		Minced		Chowder	
	Cases	*Value*	*Cases*	*Value*	*Cases*	*Value*
Soft clams:						
Maine and Massachusetts	[14] 105,672	[14] $373,773	----------	----------	79,185	$271,767
Hard clams:						
Maryland	----------	----------	----------	----------	42,795	84,961
Washington	[15] 30,226	[15] 144,540	23,599	$107,523	247	1,011
Massachusetts, Rhode Island, New York, New Jersey, Pennsylvania, and Florida	(15)	(15)	[16] 8,732	[16] 54,315	361,998	1,302,638
Total	30,226	144,540	32,331	161,838	405,040	1,388,610
Razor clams:						
Washington	2,492	23,006	36,017	296,719	----------	----------
Oregon	50	450	998	7,138	----------	----------
Alaska	1,209	8,945	24,800	192,942	----------	----------
Total	3,751	32,401	61,815	496,799	----------	----------
Grand total	139,649	550,714	94,146	658,637	484,225	1,660,377

Product and State	Juice, bouillon, broth, and cocktail [13]		Total	
	Cases	*Value*	*Cases*	*Value*
Soft clams:				
Maine and Massachusetts	15,875	$24,595	200,732	$670,135
Hard clams:				
Maryland	----------	----------	42,795	84,961
Washington	5,224	11,329	59,296	264,403
Massachusetts, Rhode Island, New York, New Jersey, Pennsylvania and Florida	[17] 15,095	[17] 70,169	385,825	1,427,122
Total	20,319	81,498	487,916	1,776,486
Razor clams:				
Washington	----------	----------	38,509	319,725
Oregon	120	476	1,168	8,064
Alaska	----------	----------	26,009	201,887
Total	120	476	65,686	529,676
Grand total	36,314	106,569	754,334	2,976,297

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[13] Consists of juice from soft clams in Maine; juice from hard clams in New York, Florida, and Washington; broth from hard and coquina clams in Florida; bouillon and cocktail from hard clams in New York; and juice from razor clams in Oregon.

[14] Packed in Maine.

[15] A small pack of whole hard clams in New York and Florida, and clams steamed in shell in Washington have been included with the Washington production.

[16] Packed in New York, New Jersey, and Florida.

[17] Includes a small amount of coquina broth packed in Florida.

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PACK OF CANNED CLAMS AND CLAM PRODUCTS: ACTUAL CASES

Product and size	Whole		Minced		Chowder	
	Cases	*Value*	*Cases*	*Value*	*Cases*	*Value*
Soft clams:						
No. 1 (48 cans)	82,304	$290,625				
1-pound (24 cans)					21,394	$75,116
1-pound (48 cans)	8,122	48,103				
No. 2 (24 cans)	9,036	29,576			2,628	7,770
No. 10 (6 cans)					3,153	10,671
Other sizes (standard cases)	1,337	5,469			55,422	178,210
Total		373,773				271,767
Hard clams:						
¼-pound (48 cans)						
½-pound (48 cans)			24,415	$87,894		
½-pound (96 cans)	17	272				
No. 1 (48 cans)	1,941	16,215	3,334	16,028	208,402	689,122
1-pound (12 cans)					282,165	477,713
1-pound (48 cans)	4,223	29,068	102	1,017	125	700
No. 2 (24 cans)	4,168	24,876	1,391	8,638		
No. 10 (6 cans)	11,712	56,420	4,920	39,160	6,644	21,871
Other sizes (standard cases)	2,106	17,689	1,515	9,101	75,102	199,204
Total		144,540		161,838		1,388,610
Razor clams:						
½-pound (48 cans)			61,753	400,244		
No. 1 (48 cans)	2,817	25,799	12,108	94,399		
1-pound (48 cans)	584	6,602	115	1,136		
No. 2 (24 cans)						
Other sizes (standard cases)			120	1,020		
Total		32,401		496,799		
Grand total		550,714		658,637		1,660,377

Product and size	Juice, bouillon, broth, and cocktail		Total	
	Cases	*Value*	*Cases*	*Value*
Soft clams:				
No. 1 (48 cans)	1,050	$1,620	83,354	$292,245
1-pound (24 cans)			21,394	75,116
1-pound (48 cans)			8,122	48,103
No. 2 (24 cans)	10,604	15,212	22,268	52,558
No. 10 (6 cans)			3,153	10,671
Other sizes (standard cases)	4,221	7,763	60,980	191,442
Total		24,595		670,135
Hard clams:				
¼-pound (48 cans)	1,558	6,674	1,558	6,674
½-pound (48 cans)			24,415	87,894
½-pound (96 cans)	78	565	95	837
No. 1 (48 cans)	836	2,812	214,513	724,177
1-pound (12 cans)			282,165	477,713
1-pound (48 cans)	360	1,507	4,810	32,292
No. 2 (24 cans)	2,578	7,997	8,137	41,511
No. 10 (6 cans)	5,122	18,406	28,398	135,857
Other sizes (standard cases)	9,051	43,537	87,774	269,531
Total		81,498		1,776,486
Razor clams:				
½-pound (48 cans)			61,753	400,244
No. 1 (48 cans)	100	400	15,025	120,598
1-pound (48 cans)			699	7,738
No. 2 (24 cans)	20	76	20	76
Other sizes (standard cases)			120	1,020
Total		476		529,676
Grand total		106,569		2,976,297

NOTE.—"Standard cases" represents the various sized cases converted to the equivalent of 48 No. 1 cans. Soft clam products were canned at 19 plants in Maine, and 2 plants in Massachusetts; hard clam products, at 2 plants in Massachusetts, 1 in Rhode Island, 2 in New York, 2 in New Jersey, 1 in Pennsylvania, 3 in Maryland, 1 in Florida, and 9 in Washington; razor clam products, at 4 plants in Washington, 3 in Oregon, and 10 in Alaska; and coquina clam products, at 1 plant in Florida.

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PACK OF CANNED SHRIMP: STANDARD CASES

State	Dry pack (in tins)		Wet pack (in tins)		Wet pack (in glass)		Total	
	Cases	*Value*	*Cases*	*Value*	*Cases*	*Value*	*Cases*	*Value*
Georgia	16,496	$85,663	100,340	$494,842	29,884	$237,592	146,720	$818,097
Florida	5,487	26,027	37,807	190,454	10,778	86,825	54,072	303,306
Alabama and Texas	14,530	72,603	57,619	275,128	[18] 19,876	[18] 150,263	92,025	497,994
Mississippi	49,953	249,370	168,241	809,202			218,194	1,058,572
Louisiana	117,959	588,522	288,470	1,405,707	(18)	(18)	406,429	1,994,229
Total	204,425	1,022,185	652,477	3,175,333	60,538	474,680	917,440	4,672,198

PACK OF CANNED SHRIMP: ACTUAL CASES

Size	Cases	Value	Size	Cases	Value
In tins, dry:			In glass, wet:		
4-ounce (48 cans)	5,728	$26,026	2½-ounce (48 cans)	33,321	$142,223
5-ounce (48 cans)	182,450	903,225	4-ounce (24 cans)	8,870	27,205
8¼-ounce (24 cans)	20,114	92,934	5¾-ounce (24 cans)	26,907	75,449
In tins, wet:			6-ounce (24 cans)	56,570	229,803
5¾-ounce (48 cans)	650,593	3,165,210			
9¾-ounce (24 cans)	2,222	10,123	Total	986,775	4,672,198

[18] The pack of shrimp in glass for Louisiana has been included with that of Alabama and Texas.

NOTE.—"Standard cases" represents the various sized cans converted to the equivalent of 48 5-ounce cans to the case in the dry pack and 48 5¾-ounce cans to the case in the wet pack. Shrimp were canned at 6 plants in Georgia, 7 in Florida, 2 in Alabama, 17 in Mississippi, 26 in Louisiana, and 3 in Texas.

PACK OF MISCELLANEOUS CANNED FISHERY PRODUCTS: STANDARD CASES

Product	Atlantic and Gulf coasts [19]		Pacific coast (including Alaska)		Total	
	Cases	*Value*	*Cases*	*Value*	*Cases*	*Value*
Shad			17,345	$46,805	17,345	$46,805
Shad roe			3,604	113,087	3,604	113,087
Fish flakes [20]	27,210	$234,091			27,210	234,091
Fish cakes, balls, etc	88,926	641,268			88,926	641,268
Cat and dog food	45,289	87,265	222,136	656,703	267,425	743,968
Sturgeon caviar	3,112	426,254			3,112	426,254
Whitefish roe and caviar	1,867	54,358			1,867	54,358
Salmon roe and caviar (for food)	2,149	44,997			2,149	44,997
Salmon eggs (for bait)			2,992	60,670	2,992	60,670
Miscellaneous fish and roe [21]	19,471	256,200	595	7,150	20,066	263,350
Crabs	(22)	(22)	[22] 7,300	[22] 130,753	7,300	130,753
Oyster soup	[23] 35,430	[23] 181,201	(23)	(23)	35,430	181,201
Squid			8,068	30,708	8,068	30,708
Turtle products	4,129	68,500			4,129	68,500
Miscellaneous shellfish, etc.[24]	5,598	41,486			5,598	41,486
Total	233,181	2,035,620	262,040	1,045,876	495,221	3,081,496

[19] Includes the production of whitefish caviar by one firm in Wisconsin.

[20] Tuna flakes are not included in this table, but are included in the table for canned tuna and tunalike fishes.

[21] Includes Alaska salted cod, pickled eels, finnan haddie, fish bouillon, fish chowder, fish paste, fish prepared for poisoning rats, smoked salmon, salmon pudding (Norwegian style), kippered sturgeon, and groundfish roe.

[22] The production of one firm in Virginia is included with the Pacific coast.

[23] The production of three firms in Washington is included with the Atlantic coast.

[24] Includes clam cakes, crab and shrimp gumbo, fresh-water crayfish, frogs and frogs' legs, pickled mussels, shrimp soup, and terrapin products.

NOTE.—"Standard cases" represents the various sized cases converted to the equivalent of 48 1-pound cans to the case. Shad were canned at 10 plants; shad roe, at 8 plants; fish flakes, at 3 plants; fish cakes, balls, etc., at 6 plants; cat and dog food, at 8 plants; sturgeon caviar, at 5 plants; whitefish roe and caviar, at 5 plants; salmon roe and caviar (for food), at 4 plants; salmon eggs (for bait), at 8 plants; miscellaneous fish and roe, at 13 plants; crabs, at 14 plants; oyster soup, at 5 plants; squid, at 3 plants; turtle products, at 4 plants; and miscellaneous shellfish, etc., at 12 plants.

Canned fishery products and byproducts of the United States and Alaska, 1936—Con.

PRODUCTION OF OYSTER AND MARINE CLAM-SHELL PRODUCTS [25]

State	Crushed shell for poultry feed		Shell lime		Total	
	Tons	*Value*	*Tons*	*Value*	*Tons*	*Value*
Rhode Island and Delaware	1, 529	$12, 247	490	$2, 164	2, 019	$14, 411
New Jersey	6, 428	47, 317	2, 102	9, 003	8, 530	56, 320
Pennsylvania	4, 532	39, 678	1, 220	5, 086	5, 752	44, 764
Maryland	45, 137	193, 288	25, 300	36, 920	70, 437	230, 208
Virginia	26, 452	136, 369	[26] 31, 943	[26] 194, 513	58, 395	330, 882
North Carolina, South Carolina, and Florida	54, 556	250, 645	8, 633	27, 881	63, 189	278, 526
Alabama, Louisiana, and Texas	127, 117	397, 030	7, 346	22, 479	134, 463	419, 509
Mississippi	17, 060	67, 279	2, 220	1, 933	19, 280	69, 212
Washington and Oregon	4, 088	41, 976	[27] 2, 902	[27] 18, 296	6, 990	60, 272
California	14, 648	74, 004	([27])	([27])	14, 648	74, 004
Total	301, 547	1, 259, 833	82, 156	318, 275	383, 703	1, 578, 108

[25] The production of marine clam-shell products was confined to Washington and California.

[26] Of this amount, 9,802 tons, valued at $72,134 were reported as "burned" lime.

[27] The production of oyster-shell lime in California has been included with that of Washington and Oregon.

NOTE.—The above crushed shell products were prepared at 2 plants in Rhode Island, 8 in New Jersey, 4 in Pennsylvania, 1 in Delaware, 4 in Maryland, 9 in Virginia, 2 in North Carolina, 2 in South Carolina, 2 in Florida, 2 in Alabama, 3 in Mississippi, 1 in Louisiana, 2 in Texas, 6 in Washington, 1 in Oregon, and 5 in California.

PRODUCTION OF FRESH-WATER MUSSEL-SHELL PRODUCTS

Item	Iowa, Wisconsin, and Missouri		New York		Total	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
Pearl buttons……gross	14, 591, 680	$3, 666, 873	3, 429, 131	$954, 498	18, 020, 811	$4, 621, 371
Crushed shell for poultry feed……tons	4, 723	25, 744			4, 723	25, 744
Lime……do	1, 966	1, 736			1, 966	1, 736
Other products [28]		61, 409				61, 409
Total		3, 755, 762		954, 498		4, 710, 260

[28] Includes stucco and "pearl novelties."

NOTE.—Mussel shells purchased by manufacturing plants during the year amounted to 58,484,000 pounds, valued at $891,677. Shells were purchased from 18 States in the Mississippi River Valley and Great Lakes region. The producing States in order of their importance were Arkansas, which contributed 35 percent of the total quantity; Illinois, 14 percent; Tennessee and Indiana, each 12 percent; Kentucky, 7 percent; Iowa, 4 percent; Michigan and Wisconsin, each 3 percent; Ohio and Mississippi, each 2 percent; Texas and South Dakota, each 1 percent; and Alabama, Kansas, Oklahoma, Missouri, Minnesota, and Louisiana, each less than 1 percent.

PRODUCTION OF MARINE PEARL-SHELL PRODUCTS [29]

Item	Massachusetts, Rhode Island, and Connecticut		New York		New Jersey	
	Gross	*Value*	*Gross*	*Value*	*Gross*	*Value*
Pearl buttons	1, 651, 203	$1, 056, 219	405, 978	$309, 171	1, 542, 264	$1, 104, 134
Novelties [30]		214, 500		87, 250		125, 082
Total		1, 270, 719		396, 421		1, 229, 216

Item	Maine, Pennsylvania, Maryland, and Florida		Oregon and California		Total	
	Gross	*Value*	*Gross*	*Value*	*Gross*	*Value*
Pearl buttons	2, 165, 379	$1, 096, 220			5, 764, 824	$3, 565, 744
Novelties [30]		191, 824		$81, 586		700, 242
Total		1, 288, 044		81, 586		4, 265, 986

[29] Produced principally from imported shells.

[30] Includes knife handles, handles for manicure sets, dolls, lamps, mounted fish decoys, etc.

NOTE.—Marine pearl-shell products were manufactured at 1 plant in Maine, 2 in Massachusetts, 1 in Rhode Island, 6 in Connecticut, 9 in New York, 19 in New Jersey, 1 in Pennsylvania, 1 in Maryland, 2 in Florida, 1 in Oregon, and 2 in California.

Canned fishery products and byproducts of the United States and Alaska, 1936—Con.

FISH UTILIZED AND PRODUCTS OF THE MENHADEN INDUSTRY

State	Menhaden utilized	Products						
		Dry scrap and meal		Acidulated scrap		Oil		Total
	Number	*Tons*	*Value*	*Tons*	*Value*	*Gallons*	*Value*	*Value*
New York, New Jersey, Delaware, and Georgia	152, 636, 000	5, 424	$175, 180	9, 590	$143, 067	1, 179, 378	$308, 132	$626, 379
Virginia	288, 537, 000	21, 242	748, 165	--------	--------	2, 784, 223	696, 101	1, 444, 266
North Carolina	142, 741, 000	5, 804	191, 161	8, 961	138, 746	666, 454	184, 202	514, 109
Florida	186, 391, 000	9, 941	297, 204	4, 931	77, 802	250, 824	61, 273	436, 279
Total	[31] 770, 305, 000	[32] 42, 411	[32] 1, 411, 710	23, 482	359, 615	4, 880, 879	1, 249, 708	3, 021, 033

[31] 463,291,000 pounds.

[32] Of this production 34,834 tons, valued at $1,148,416, were reported as dry scrap and 7,577 tons, valued at $263,294, as fish meal.

NOTE.—The menhaden factories were located as follows: 1 in New York, 2 in New Jersey, 2 in Delaware, 10 in Virginia, 8 in North Carolina, 1 in Georgia, and 5 in Florida.

PRODUCTION OF MISCELLANEOUS BYPRODUCTS

Product	Atlantic and Gulf coasts [33]		Pacific coast (including Alaska)		Total	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
Dried scrap:						
Alewife .... tons	557	$16, 502	--------	--------	557	$16, 502
Blue crab .... do	1, 644	32, 650	--------	--------	1, 644	32, 650
King crab .... do	603	21, 515	--------	--------	603	21, 515
Miscellaneous [34] .... do	1, 594	36, 191	--------	--------	1, 594	36, 191
Meal:						
Groundfish "white fish" .... do	14, 188	619, 900	--------	--------	14, 188	619, 900
Herring (Alaska) .... do	--------	--------	14, 193	$522, 014	14, 193	522, 014
Herring (Maine) .... do	2, 587	71, 343	--------	--------	2, 587	71, 343
Mackerel .... do	--------	--------	3, 025	90, 254	3, 025	90, 254
Pilchard .... do	--------	--------	121, 739	3, 968, 305	121, 739	3, 968, 305
Salmon .... do	--------	--------	1, 657	55, 128	1, 657	55, 128
Tuna .... do	--------	--------	8, 822	269, 155	8, 822	269, 155
Shrimp .... do	1, 512	29, 783	384	7, 688	1, 896	37, 471
Whale (meat) .... do	--------	--------	789	28, 404	789	28, 404
Whale (bone) .... do	--------	--------	395	9, 480	395	9, 480
Miscellaneous [35] .... do	2, 613	100, 977	1, 583	45, 784	4, 196	146, 761
Oil:						
Alewife .... gallons	6, 550	1, 363	--------	--------	6, 550	1, 363
Cod .... do	17, 542	7, 049	--------	--------	17, 542	7, 049
Cod liver .... do	281, 374	170, 779	--------	--------	281, 374	170, 779
Fur seal .... do	--------	--------	23, 669	7, 229	23, 669	7, 229
Herring (Alaska) .... do	--------	--------	3, 736, 173	946, 393	3, 736, 173	946, 393
Herring (Maine) .... do	60, 413	8, 313	--------	--------	60, 413	8, 313
Mackerel .... do	--------	--------	191, 753	63, 454	191, 753	63, 454
Pilchard .... do	--------	--------	26, 131, 439	8, 336, 079	26,131,439	8, 336, 079
Salmon [36] .... do	--------	--------	145, 992	59, 301	145, 992	59, 301
Shark .... do	1, 250	286	--------	--------	1, 250	286
Shark liver .... do	--------	--------	2, 860	1, 010	2, 860	1, 010
Tuna .... do	--------	--------	166, 161	34, 767	166, 161	34, 767
Whale:						
Sperm .... do	1, 848	370	199, 450	48, 772	201, 298	49, 142
Other .... do	3, 139, 968	1, 360, 662	813, 700	297, 757	3, 953, 668	1, 658, 419
Liver (other than cod and shark) [37] .... gallons	26, 526	1, 099, 266	40, 640	1, 625, 600	67, 166	2, 724, 866
Miscellaneous [38] .... do	30, 031	9, 228	3, 600	1, 080	33, 631	10, 308
Liquid glue [39] .... do	[39] 433, 412	[39] 902, 264	([39])	([39])	433, 412	902, 264
Shark fins .... pounds	4, 412	2, 043	--------	--------	4, 412	2, 043
Miscellaneous byproducts [40]	--------	101, 579	--------	383, 880	--------	485, 459
Total	--------	4, 592, 063	--------	16, 801, 534	--------	21, 393, 597

[33] Includes the production of burbot-liver oil in Minnesota and Wisconsin.

[34] Includes groundfish, herring, and miscellaneous acid and dry scrap.

[35] Includes salmon-egg, abalone, clam and miscellaneous meals, and cod-liver pressings.

[36] Includes a considerable production of salmon oil especially prepared for human consumption.

[37] Includes burbot, halibut, "lingcod," sablefish, swordfish, totuava, and tuna-liver oils.

[38] Includes rosefish and miscellaneous fish oils.

[39] A quantity of liquid glue produced by one firm in California is included with the production of liquid glue of the Atlantic and Gulf coasts.

[40] Includes isinglass, shark skins, kelp products, and pearl essence.

FROZEN-FISH TRADE [3]

FISH FROZEN

During 1936 the freezing plants which reported their activities to the Government froze 179,273,698 pounds of fishery products. These products at the time they were held in cold storage plants, were estimated to be valued at about $15,000,000. Compared with the output in 1935 this was an increase of 20 percent in volume. Five species or groups of species accounted for 64 percent of the total amount frozen. In the order of their importance they were cod, haddock, hake, and pollock (including cod, haddock, and pollock fillets), which accounted for 27 percent of the total; whiting, 16 percent; halibut, 9 percent; salmon, 7 percent; and mackerel, 5 percent. Other products frozen in considerable quantities during the year were sea herring and shellfish.

Production of frozen fishery products, 1936

BY SPECIES AND MONTHS

Species	Month ended the 15th of—						
	January	February	March	April	May	June	July
	Pounds	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
Bluefish (all trade sizes)	115, 794	4, 239	7, 419	7, 742	102, 555	84, 247	34, 048
Butterfish (all trade sizes)	4, 851	14, 524	2, 645	27, 279	23, 885	166, 840	64, 648
Catfish	61, 593	12, 397	21, 698	126, 147	98, 647	76, 877	22, 297
Cisco (Lake Erie)	889	---------	172	---------	570	14, 698	23, 312
Cisco (lake herring), including bluefin, blackfin, and chub	392, 143	17, 608	6, 065	6, 011	19, 928	85, 363	188, 674
Cisco (tullibees, Canadian lakes)	1, 865	6, 036	10, 567	1, 300	---------	8, 607	1, 950
Cod, haddock, hake, and pollock (except fillets of cod, haddock, and pollock)	1, 065, 906	263, 309	603, 056	1, 504, 491	2, 172, 937	1, 426, 592	292, 687
Cod fillets	(1)	(1)	(1)	(1)	(1)	(1)	80, 935
Croaker	5, 231	291	83, 682	510, 070	968, 545	251, 873	59, 031
Flounders	54, 491	53, 665	44, 787	62, 226	96, 761	116, 163	21, 079
Haddock fillets	893, 198	914, 400	2, 278, 505	2, 959, 298	2, 790, 663	2, 183, 681	2, 167, 172
Halibut (all trade sizes)	429, 744	---------	---------	1, 198, 868	2, 275, 163	2, 713, 330	2, 919, 198
Herring, sea (including alewives and bluebacks)	34, 934	55, 885	78, 175	443, 128	760, 299	725, 426	169, 239
Lake trout	12, 229	4, 559	18, 297	9, 068	45, 075	65, 097	66, 714
Mackerel (except Spanish)	40, 492	73, 952	21, 983	31, 425	1, 496, 219	2, 287, 015	3, 159, 172
Perch, yellow	595	---------	1, 492	370	5, 095	6, 908	9, 055
Pike, blue and sauger	49, 800	39, 704	38, 926	12, 881	207, 731	301, 912	52, 536
Pike, yellow or wall-eyed	429	20, 184	91, 713	28, 374	103, 596	22, 875	5, 039
Pike (including pickerel, jacks, and yellow jack)	2, 439	2, 651	15, 550	6, 732	10, 129	12, 224	14, 847
Pollock fillets	(1)	(1)	(1)	(1)	(1)	(1)	4, 930
Sablefish (black cod)	46, 807	91, 848	20, 732	9, 916	12, 997	57, 942	110, 095
Salmon, chinook or king	5, 470	17, 953	9, 282	46, 239	98, 756	446, 791	795, 501
Salmon, silver or coho	24, 147	101, 144	22, 548	19, 984	26, 137	24, 172	278, 421
Salmon, fall and pink	39, 843	13, 731	14, 628	17, 875	7, 994	1, 484	21, 964
Salmon, steelhead trout	7, 345	21, 487	54, 341	7, 287	10, 707	10, 512	186, 704
Scup (porgies)	1, 826	322	---------	18, 453	121, 847	372, 505	201, 671
Shad and shad roe	2, 778	3, 190	7, 555	10, 701	207, 274	63, 490	185, 856
Shellfish	415, 993	362, 408	227, 425	148, 590	273, 000	966, 971	728, 479
Smelts, eulachon, etc	22, 879	146, 660	173, 537	395, 643	697, 180	21, 324	32, 940
Squid	7, 850	24, 980	400	1, 854	363, 753	756, 521	203, 357
Sturgeon and spoonbill cat	1, 013	2, 624	248	833	41, 743	39, 696	12, 134
Suckers	1, 150	2, 432	2, 389	1, 870	59, 581	24, 083	17, 747
Swordfish	25, 563	20, 348	1, 193	18, 031	3, 898	644	9, 399
Weakfish (including southern "sea trout")	---------	3, 343	711	2, 425	243, 006	213, 813	56, 883
Whitefish	7, 542	94, 866	175, 790	1, 035	13, 302	6, 950	103, 063
Whiting	84, 409	57, 142	76, 888	50, 198	557, 996	5, 527, 179	8, 061, 735
Miscellaneous fish	978, 277	679, 416	1, 025, 927	1, 886, 850	3, 219, 716	2, 599, 509	2, 281, 766
Total	4, 839, 515	3, 127, 298	5, 138, 326	9, 573, 194	17, 136, 685	21, 683, 314	22, 644, 278

[1] Prior to July 15, 1936, this item was included with "Cod, haddock, hake, and pollock."

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[3] The statistics in this section have been furnished by the Bureau of Agricultural Economics, Department of Agriculture.

Production of frozen fishery products, 1936—Continued

BY SPECIES AND MONTHS—Continued

Species	Month ended the 15th of—					
	August	September	October	November	December	Total
	Pounds	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
Bluefish (all trade sizes)	1, 005, 237	172, 559	113, 145	69, 773	29, 248	1, 746, 006
Butterfish (all trade sizes)	69, 090	243, 608	184, 809	216, 988	193, 675	1, 212, 842
Catfish	21, 795	18, 639	34, 929	31, 516	39, 376	565, 911
Cisco (Lake Erie)	34, 710	12, 551	20, 340	1, 745	46, 286	155, 273
Cisco (lake herring), including bluefin, blackfin, and chub	239, 147	220, 780	239, 979	1, 089, 413	1, 289, 270	3, 794, 381
Cisco (tullibees, Canadian lakes)	14, 405	2, 837	1, 300	10	759	49, 636
Cod, haddock, hake, and pollock (except fillets of cod, haddock, and pollock)	1, 020, 650	1, 059, 380	1, 219, 052	1, 256, 700	1, 349, 579	13, 234, 339
Cod fillets	961, 875	590, 991	622, 396	387, 793	481, 857	3, 125, 847
Croaker	240, 153	300, 821	12, 769	47, 327	23, 247	2, 503, 040
Flounders	33, 671	40, 054	105, 675	79, 902	87, 537	796, 011
Haddock fillets	2, 360, 099	2, 547, 235	2, 488, 600	1, 318, 393	911, 735	23, 812, 979
Halibut (all trade sizes)	3, 075, 179	954, 185	811, 866	1, 365, 481	--------	15, 743, 014
Herring, sea (including alewives and bluebacks)	193, 110	211, 811	919, 863	1, 413, 562	412, 696	5, 418, 128
Lake trout	53, 881	64, 137	161, 789	277, 552	145, 860	924, 258
Mackerel (except Spanish)	1, 004, 541	653, 013	464, 446	362, 845	128, 857	9, 723, 960
Perch, yellow	7, 792	17, 641	34, 538	59, 631	30, 940	174, 057
Pike, blue and sauger	24, 407	5, 181	86, 936	289, 213	102, 044	1, 211, 271
Pike, yellow or wall-eyed	5, 263	9, 830	18, 018	4, 095	28, 975	338, 391
Pike (including pickerel, jacks, and yellow jack)	10, 175	12, 972	14, 032	18, 805	26, 534	147, 090
Pollock fillets	518, 157	535, 515	986, 933	3, 168, 518	3, 049, 098	8, 263, 151
Sablefish (black cod)	235, 203	468, 993	530, 509	661, 774	322, 986	2, 569, 802
Salmon, chinook or king	956, 013	587, 208	1, 356, 462	250, 876	78, 292	4, 648, 843
Salmon, silver or coho	1, 308, 701	1, 382, 126	783, 020	224, 794	86, 861	4, 282, 055
Salmon, fall and pink	308, 330	186, 349	908, 182	1, 751, 425	154, 980	3, 426, 785
Salmon, steelhead trout	365, 596	140, 449	35, 753	7, 988	12, 169	860, 338
Scup (porgies)	39, 362	109, 068	18, 996	3, 608	3, 212	890, 870
Shad and shad roe	63, 368	6, 083	1, 639	17, 475	26, 514	595, 923
Shellfish	544, 783	854, 483	1, 521, 843	1, 420, 111	1, 155, 775	8, 619, 861
Smelts, eulachon, etc	29, 895	27, 186	50, 910	96, 365	132, 010	1, 826, 529
Squid	273, 606	125, 629	57, 574	64, 381	8, 142	1, 888, 047
Sturgeon and spoonbill cat	12, 268	25, 602	112, 563	83, 852	37, 420	369, 996
Suckers	9, 625	15, 100	7, 914	3, 164	3, 639	148, 694
Swordfish	388, 202	46, 868	59, 000	45, 037	27, 587	645, 770
Weakfish (including southern "sea trout")	181, 340	346, 015	62, 299	58, 418	35, 350	1, 203, 603
Whitefish	39, 050	29, 043	49, 304	45, 915	46, 957	612, 817
Whiting	5, 538, 161	3, 923, 554	1, 497, 049	1, 116, 710	1, 065, 296	27, 556, 317
Miscellaneous fish	1, 958, 162	1, 804, 221	2, 967, 999	3, 218, 056	3, 567, 964	26, 187, 863
Total	23, 145, 002	17, 751, 717	18, 562, 431	20, 529, 211	15, 142, 727	179, 273, 698

BY GEOGRAPHICAL SECTIONS AND SPECIES[2]

[Expressed in thousands of pounds; that is, 000 omitted]

Species	New England	Middle Atlantic	South Atlantic	North Central, East	North Central, West	South Central	Pacific	Total
Bluefish (all trade sizes)	75	1, 520	9	134	1	7	--------	1, 746
Butterfish (all trade sizes)	242	965	6	--------	--------	--------	--------	1, 213
Catfish	199	7	101	50	163	46	--------	566
Cisco (Lake Erie)	--------	151	--------	4	--------	--------	--------	155
Cisco (lake herring), including bluefin, blackfin, and chub	18	736	--------	2, 243	797	--------	--------	3, 794
Cisco (tullibees, Canadian lakes)	30	2	--------	7	11	--------	--------	50
Cod, haddock, hake, and pollock (except fillets of cod, haddock, and pollock)	11, 635	233	9	213	8	905	231	13, 234
Cod fillets[1]	3, 069	5	--------	36	13	--------	3	3, 126

[1] Prior to July 15, 1936, this item was included with "Cod, haddock, hake, and pollock."

[2] New England includes the 6 States of that section; Middle Atlantic—New York, New Jersey, and Pennsylvania; South Atlantic—Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, and Florida; North Central, East—Ohio, Indiana, Illinois, Michigan, and Wisconsin; North Central, West—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas; South Central—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, and Arkansas; and Pacific—Washington, Oregon, California, and Alaska.

Production of frozen fishery products, 1936—Continued

BY GEOGRAPHICAL SECTIONS AND SPECIES—Continued

[Expressed in thousands of pounds; that is, 000 omitted]

Species	New England	Middle Atlantic	South Atlantic	North Central, East	North Central, West	South Central	Pacific	Total
Croakers	--------	411	1,937	141	--------	14	--------	2,503
Flounders	180	548	2	8	--------	2	56	796
Haddock fillets	23,049	77	30	634	22	--------	1	23,813
Halibut (all trade sizes)	269	275	8	453	58	15	14,665	15,743
Herring, sea (including alewives and bluebacks)	3,176	218	33	891	9	4	1,087	5,418
Lake trout	8	185	31	606	85	9	--------	924
Mackerel (except Spanish)	7,086	2,196	12	211	1	3	215	9,724
Perch, yellow	--------	12	9	146	4	--------	3	174
Pike, blue and sauger	--------	258	--------	951	2	--------	--------	1,211
Pike, yellow or wall-eyed	--------	184	--------	59	95	--------	--------	338
Pike (including pickerel, jacks, and yellow jack)	--------	20	--------	62	65	--------	--------	147
Pollock fillets [1]	8,262	--------	--------	--------	1	--------	--------	8,263
Sablefish (black cod)	--------	1	--------	92	9	--------	2,468	2,570
Salmon, chinook or king	52	83	12	17	43	--------	4,442	4,649
Salmon, silver or coho	50	111	9	29	34	5	4,044	4,282
Salmon, fall and pink	--------	4	6	52	24	5	3,336	3,427
Salmon, steelhead trout	--------	17	1	--------	--------	--------	842	860
Scup (porgies)	116	773	--------	2	--------	--------	--------	891
Shad and shad roe	276	228	5	38	--------	6	43	596
Shellfish	950	2,309	381	845	419	2,285	1,431	8,620
Smelts, eulachon, etc	38	499	35	1,137	5	1	112	1,827
Squid	1,461	414	1	2	--------	--------	10	1,888
Sturgeon and spoonbill cat	--------	340	--------	11	8	6	5	370
Suckers	2	2	22	123				149
Swordfish	403	5	3	18	--------	--------	217	646
Weakfish (including southern "sea trout")	--------	1,018	186	--------	--------	--------	--------	1,204
Whitefish	3	469	1	103	28	6	3	613
Whiting	24,516	2,273	5	225	61	476	--------	27,556
Miscellaneous frozen fish	11,008	3,519	2,937	3,459	693	1,207	3,365	26,188
Total	96,173	20,068	5,791	13,002	2,659	5,002	36,579	179,274

[1] Prior to July 15, 1936, this item was included with "Cod, haddock, hake, and pollock."

BY GEOGRAPHICAL SECTIONS AND MONTHS [2]

[Expressed in thousands of pounds; that is, 000 omitted]

Month ended the 15th of—	New England	Middle Atlantic	South Atlantic	North Central, East	North Central, West	South Central	Pacific	Total
January	2,173	600	227	589	189	123	939	4,840
February	1,103	708	91	377	64	146	638	3,127
March	3,156	627	232	403	112	124	484	5,138
April	5,323	265	1,060	834	155	167	1,769	9,573
May	7,975	2,482	1,515	1,812	244	184	2,925	17,137
June	13,029	2,251	298	1,680	116	586	3,723	21,683
July	15,167	1,493	87	815	142	329	4,611	22,644
August	13,222	2,204	309	630	159	309	6,312	23,145
September	10,081	1,720	397	666	142	576	4,170	17,752
October	9,121	2,205	53	1,016	272	869	5,026	18,563
November	8,731	2,550	418	2,367	489	943	5,031	20,529
December	7,092	2,963	1,104	1,813	575	646	950	15,143
Total	96,173	20,068	5,791	13,002	2,659	5,002	36,579	179,274

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[2] New England includes the 6 States of that section: Middle Atlantic—New York, New Jersey, and Pennsylvania; South Atlantic—Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, and Florida; North Central, East—Ohio, Indiana, Illinois, Michigan, and Wisconsin; North Central, West—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas; South Central—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, and Arkansas; and Pacific—Washington, Oregon, California, and Alaska.

HOLDINGS

During 1936 monthly holdings of frozen fish and shellfish averaged 61,990,000 pounds, which is an increase of 19 percent as compared with the average monthly holdings in 1935. The largest supplies were in storage in December when 94,695,000 pounds were on hand and the smallest quantity was in storage in April when 26,102,000 pounds were held. The holdings during each of the months from September to December exceeded 84,000,000 pounds.

Holdings of frozen fishery products, 1936

BY SPECIES AND MONTHS

Species	Month ended the 15th of—					
	January	February	March	April	May	June
	Pounds	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
Bluefish (all trade sizes)	459, 595	292, 023	158, 241	75, 203	145, 080	129, 901
Butterfish (all trade sizes)	365, 229	244, 806	170, 371	118, 959	114, 305	244, 343
Catfish	468, 847	419, 513	201, 391	137, 582	206, 547	243, 394
Cisco (Lake Erie)	37, 556	34, 569	14, 693	298	1, 425	12, 495
Cisco (lake herring), including bluefin, blackfin, and chub	1, 411, 301	746, 369	265, 359	78, 673	61, 877	148, 959
Cisco (tullibees, Canadian lakes)	387, 085	413, 611	349, 116	198, 272	91, 895	39, 529
Cod, haddock, hake, and pollock (except fillets of cod, haddock, and pollock)	4, 675, 755	2, 421, 050	829, 335	1, 269, 739	2, 341, 272	2, 709, 534
Cod fillets	(1)	(1)	(1)	(1)	(1)	(1)
Croaker	299, 536	112, 220	71, 958	553, 539	1, 520, 896	1, 582, 253
Flounders	290, 875	166, 041	211, 343	200, 250	260, 306	354, 529
Haddock fillets	5, 226, 716	3, 340, 546	2, 706, 052	3, 434, 875	4, 213, 612	4, 540, 207
Halibut (all trade sizes)	6, 186, 132	3, 856, 080	1, 936, 747	2, 193, 366	4, 318, 163	6, 573, 973
Herring, sea (including alewives and bluebacks)	2, 634, 743	1, 905, 490	1, 408, 415	1, 303, 996	1, 600, 908	1, 906, 102
Lake trout	516, 259	283, 568	144, 145	53, 164	80, 426	133, 337
Mackerel (except Spanish)	6, 014, 158	4, 032, 790	1, 916, 326	633, 102	1, 915, 980	3, 719, 478
Perch, yellow	97, 941	48, 186	23, 169	14, 562	18, 045	23, 764
Pike, blue and sauger	605, 956	600, 553	601, 569	253, 074	413, 617	600, 116
Pike, yellow or wall-eyed	173, 346	283, 165	392, 210	371, 636	430, 794	363, 981
Pike (including pickerel, jacks, and yellow jack)	195, 144	226, 763	260, 241	233, 471	207, 785	190, 974
Pollock fillets	(1)	(1)	(1)	(1)	(1)	(1)
Sablefish (black cod)	1, 823, 080	1, 297, 705	964, 974	695, 747	523, 534	432, 496
Salmon, chinook or king	3, 365, 799	2, 832, 548	2, 240, 485	1, 702, 157	1, 489, 050	1, 683, 521
Salmon, silver or coho	5, 588, 934	3, 899, 030	2, 629, 272	1, 755, 506	1, 198, 142	972, 532
Salmon, fall and pink	3, 192, 605	2, 207, 476	1, 418, 093	1, 047, 878	866, 839	718, 714
Salmon, steelhead trout	201, 472	179, 527	198, 491	126, 225	101, 516	69, 804
Scup (porgies)	62, 730	29, 735	14, 487	23, 007	145, 755	514, 909
Shad and shad roe	291, 120	227, 200	195, 834	143, 174	321, 895	358, 691
Shellfish	3, 582, 708	3, 064, 360	2, 167, 458	1, 194, 427	879, 038	1, 277, 801
Smelts, eulachon, etc	668, 650	921, 323	1, 583, 690	1, 741, 944	2, 151, 044	2, 087, 295
Squid	1, 459, 774	1, 177, 396	839, 069	399, 420	587, 177	1, 317, 566
Sturgeon and spoonbill cat	75, 947	59, 479	360, 429	388, 860	332, 153	318, 881
Suckers	155, 864	144, 757	113, 811	64, 095	121, 079	121, 839
Swordfish	951, 266	773, 644	427, 274	188, 800	147, 206	35, 906
Weakfish (including southern "sea trout")	299, 518	154, 994	51, 590	27, 678	226, 697	394, 062
Whitefish	774, 747	907, 041	892, 220	594, 977	317, 524	212, 448
Whiting	4, 427, 088	2, 883, 065	1, 408, 328	533, 314	767, 686	5, 055, 878
Miscellaneous fish	7, 063, 542	4, 942, 343	4, 104, 211	4, 350, 639	6, 136, 525	7, 140, 762
Total	64, 031, 018	45, 128, 966	31, 270, 397	26, 101, 609	34, 255, 793	46, 229, 974

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[1] Prior to July 15, 1936, this item was included with "Cod, haddock, hake, and pollock."

Holdings of frozen fishery products, 1936—Continued

BY SPECIES AND MONTHS—Continued

Species	Month ended the 15th of—					
	July	August	September	October	November	December
	Pounds	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
Bluefish (all trade sizes)	86, 373	1, 086, 199	1, 184, 282	1, 083, 597	981, 019	850, 360
Butterfish (all trade sizes)	253, 565	286, 929	482, 212	566, 372	662, 643	732, 562
Catfish	204, 734	194, 178	196, 423	260, 806	287, 836	340, 022
Cisco (Lake Erie)	30, 898	55, 635	60, 187	65, 167	49, 308	71, 415
Cisco (lake herring), including bluefin, blackfin, and chub	299, 151	494, 384	648, 008	848, 527	1, 613, 506	2, 487, 924
Cisco (tullibees, Canadian lakes)	37, 296	48, 667	49, 868	48, 258	28, 538	32, 924
Cod, haddock, hake, and pollock (except fillets of cod, haddock, and pollock)	2, 097, 835	1, 698, 780	1, 884, 790	2, 140, 246	2, 613, 878	3, 577, 156
Cod fillets	1, 194, 479	1, 789, 571	1, 585, 054	1, 561, 803	1, 378, 767	1, 561, 470
Croaker	1, 209, 119	1, 497, 338	1, 744, 736	1, 128, 055	1, 005, 671	746, 848
Flounders	313, 208	278, 573	281, 750	293, 569	327, 000	399, 445
Haddock fillets	6, 047, 069	7, 012, 803	8, 835, 909	9, 021, 726	7, 921, 391	6, 691, 817
Halibut (all trade sizes)	9, 130, 392	11, 941, 231	12, 199, 303	10, 945, 336	10, 378, 274	8, 887, 224
Herring, sea (including alewives and bluebacks)	1, 574, 328	1, 279, 667	1, 065, 181	1, 472, 956	2, 589, 547	2, 621, 891
Lake trout	210, 521	241, 875	301, 753	507, 727	804, 899	831, 095
Mackerel (except Spanish)	6, 706, 300	7, 429, 664	7, 638, 332	6, 582, 498	5, 724, 298	4, 936, 233
Perch, yellow	24, 757	26, 509	46, 108	75, 581	206, 234	186, 012
Pike, blue and sauger	392, 964	170, 745	70, 449	215, 463	557, 233	645, 253
Pike, yellow or wall-eyed	330, 922	253, 846	246, 518	254, 037	258, 753	270, 196
Pike (including pickerel, jacks, and yellow jack)	196, 875	176, 151	194, 183	209, 802	177, 635	172, 654
Pollock fillets	444, 386	756, 644	964, 086	1, 616, 699	4, 138, 690	5, 961, 511
Sablefish (black cod)	424, 943	530, 623	887, 214	1, 181, 035	1, 618, 952	1, 843, 766
Salmon, chinook or king	2, 189, 703	2, 774, 391	3, 074, 762	4, 065, 863	4, 063, 008	3, 830, 004
Salmon, silver or coho	1, 099, 268	2, 329, 242	3, 481, 988	3, 791, 394	3, 625, 217	3, 429, 031
Salmon, fall and pink	654, 451	816, 224	858, 406	1, 588, 927	2, 894, 784	2, 958, 833
Salmon, steelhead trout	245, 794	564, 507	651, 613	651, 420	655, 119	676, 787
Scup (porgies)	688, 871	724, 528	824, 736	781, 001	691, 983	572, 320
Shad and shad roe	557, 892	592, 138	581, 412	541, 526	509, 833	445, 502
Shellfish	1, 620, 490	1, 447, 472	1, 943, 643	2, 739, 945	3, 653, 553	3, 850, 147
Smelts, eulachon, etc	2, 065, 938	2, 021, 874	2, 046, 204	1, 884, 694	1, 915, 766	1, 635, 033
Squid	1, 352, 855	1, 369, 025	1, 139, 504	860, 767	883, 709	728, 318
Sturgeon and spoonbill cat	279, 143	284, 836	208, 028	275, 513	296, 095	130, 201
Suckers	138, 087	140, 588	139, 091	128, 041	123, 192	114, 582
Swordfish	39, 772	418, 448	430, 253	480, 142	589, 358	656, 796
Weakfish (including southern "sea trout")	405, 864	558, 158	874, 250	740, 342	689, 398	654, 356
Whitefish	303, 098	295, 763	424, 581	512, 523	511, 499	510, 196
Whiting	12, 117, 447	16, 474, 491	18, 590, 064	17, 426, 453	16, 686, 051	17, 091, 817
Miscellaneous fish	7, 581, 873	8, 014, 710	8, 862, 931	9, 597, 581	11, 589, 502	13, 562, 899
Total	62, 550, 661	76, 076, 407	84, 697, 812	86, 145, 392	92, 702, 139	94, 694, 600

BY GEOGRAPHICAL SECTIONS AND MONTHS [2]

[Expressed in thousands of pounds; that is, 000 omitted]

Month ended the 15th of—	New England	Middle Atlantic	South Atlantic	North Central, East	North Central, West	South Central	Pacific [3]	Total
January	20, 815	9, 014	1, 558	8, 336	4, 714	504	19, 090	64, 031
February	12. 620	7, 238	1, 236	7, 107	3, 996	286	12, 646	45, 129
March	7, 384	6, 833	867	5, 057	3, 044	98	7, 987	31, 270
April	6, 447	5, 150	1. 632	3, 644	2, 195	100	6, 934	26, 102
May	9, 926	6, 080	3, 112	4, 660	2, 127	187	8, 164	34. 256
June	17, 020	7, 260	3, 089	5, 708	2, 230	435	10, 488	46. 230
July	27, 919	8, 021	2, 606	6, 651	3, 280	425	13, 649	62, 551
August	32, 827	9, 493	3, 076	4, 918	4, 731	399	20, 632	76, 076
September	34, 981	10. 358	3. 368	8, 786	5, 680	584	20, 941	84, 698
October	34, 366	11, 013	2, 534	9, 170	6, 371	945	21, 746	86, 145
November	34, 120	12, 303	2, 686	12, 990	6, 746	1, 289	22, 568	92, 702
December	35. 293	13. 286	3, 342	13, 987	7, 171	1, 117	20, 499	94, 695
Average	22, 810	8, 837	2, 426	7, 584	4, 357	531	15, 445	61, 990

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[2] New England includes the 6 States of that section; Middle Atlantic—New York, New Jersey, and Pennsylvania; South Atlantic—Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, and Florida; North Central, East—Ohio, Indiana, Illinois, Michigan, and Wisconsin; North Central, West—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas; South Central—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, and Arkansas; and Pacific—Washington, Oregon, California, and Alaska.

[3] Includes a small amount of fish held in Colorado in the Mountain section.

COLD-STORAGE HOLDINGS OF CURED FISH

During 1936 monthly cold-storage holdings of cured herring and mild-cured salmon averaged 21,499,000 pounds which is an increase of 67 percent as compared with the average monthly holdings in 1935. The holdings during October were the largest, amounting to 30,666,265 pounds, and the smallest were in February, amounting to 14,417,137 pounds.

Holdings of cured fish, 1936, by species and months

Month ended the 15th of—	Cured herring	Mild-cured salmon	Total
	Pounds	*Pounds*	*Pounds*
January	11,691,071	3,934,058	15,625,129
February	11,220,277	3,196,860	14,417.137
March	11,045,969	4.683,851	15,729,820
April	11 988,905	3,823,286	15,812,191
May	14,336,246	3,457.473	17,793,719
June	15,244,953	4,047,567	19,292.520
July	15,212,397	4,773,666	19,986 063
August	14.966,600	8,113,838	23,080,438
September	18.705,792	9.581,733	28,287,525
October	21,036,444	9,629,821	30,666,265
November	20,204.091	9,292.467	29,496,558
December	18,049,926	9,749,907	27,799,833

FOREIGN FISHERY TRADE

The foreign trade in fishery products of the United States in 1936 amounted to $55,086,726, of which $41,872,560 represents the value of these products imported for consumption, and $13,214,166, the value of exports of domestic fishery products. Compared with the previous year, there was an increase of 9 percent in total trade, and 16 percent in the value of the imports, but a decrease of 8 percent in the value of exports.

Imports consisted of 371,205,567 pounds of edible products, valued at $30,356,439, and nonedible products, valued at $11,516,121. Fishery exports consisted of 111,259,302 pounds of edible products, valued at $12,262,784, and nonedible products, valued at $951,382.

Import duties levied on fishery products imported during 1936 totaled $6,544,971.

Exports of domestic fishery products, 1936 [1]

Item	Quantity	Value
EDIBLE FISHERY PRODUCTS		
Fish, fresh, frozen, or packed in ice:		
Salmon ... pounds	5,326,396	$523,764
Other ... do	1,378,412	142,668
Total ... do	6,704,808	666,432
Fish, salted, pickled, or dry cured:		
Cod, haddock, hake, pollock, and cusk ... do	628,099	62,128
Salmon ... do	1,996,168	347,600
Herring ... do	1,191,128	61,459
Other ... do	1,881,018	77,721
Total ... do	5,696,413	548,908
Fish, smoked or kippered ... do	276,917	34,658

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[1] These statistics have been furnished by the Bureau of Foreign and Domestic Commerce, Department of Commerce.

Exports of domestic fishery products, 1936—Continued

Item	Quantity	Value
EDIBLE FISHERY PRODUCTS—continued		
Fish, canned:		
Mackerel ... pounds	803,754	$45,648
Salmon ... do	38,892,896	6,404,358
Sardines ... do	42,688,741	2,530,867
Other ... do	366,070	57,872
Total ... do	82,751,461	9,038,745
Shellfish, not canned:		
Oysters, fresh, in the shell ... do	3,998,408	134,369
Oysters, fresh, shucked, frozen, or in ice ... do	1,656,130	240,261
Shrimp, fresh, frozen, or in ice ... do	2,084,283	244,541
Shrimp, dried ... do	1,494,473	258,221
Other shellfish, fresh, frozen, in ice, or dried ... do	226,890	27,314
Total ... do	9,460,184	904,706
Shellfish, canned:		
Shrimp ... do	5,082,336	817,878
Other ... do	1,084,959	173,787
Total ... do	6,167,295	991,665
Other fish products ... do	202,224	77,670
Total edible products ... do	111,259,302	12,262,784
NONEDIBLE FISHERY PRODUCTS		
Marine-animal oils ... pounds	2,154,242	327,952
Sponges ... do	53,897	66,055
Fish meal for feed ... tons	4,431	183,043
Oyster shells ... do	58,961	374,332
Total nonedible products		951,382
Grand total		13,214,166

Imports of fishery products entered for consumption, 1936 [1]

Item	Pounds	Value
EDIBLE FISHERY PRODUCTS		
Fish, fresh or frozen:		
Whole or beheaded, or eviscerated, or both:		
Salmon	10,506,190	$820,301
Fresh-water fish, not elsewhere specified:		
Yellow pike	9,753,194	840,747
Whitefish	11,748,094	1,490,153
Tullibees	1,699,501	106,396
Jacks or grass pike	3,454,042	180,831
Lake trout	4,319,650	484,161
Yellow perch	1,795,509	153,830
Lake herring and ciscoes	1,872,841	198,398
Chubs	894,386	113,163
Mullets (*Catostomus*)	485,721	26,605
Saugers	4,637,560	273,608
Fresh-water fish, not elsewhere specified	9,177,699	562,387
Eels	504,042	28,958
Cod, haddock, hake, pollock, and cusk	3,439,552	150,855
Halibut:		
Fresh	4,170,284	382,464
Frozen	904,147	75,468
Mackerel	451,291	21,225
Swordfish:		
Fresh	1,870,828	371,942
Frozen	4,154,582	293,267
Sturgeon	1,109,817	189,484
Fish, not specially provided for	5,071,618	186,452
Whether or not whole:		
Smelts	8,611,650	848,271
Tuna fish	5,454,897	305,343

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[1] These statistics have been furnished by the Bureau of Foreign and Domestic Commerce, Department of Commerce.

Imports of fishery products entered for consumption, 1936—Continued

Item	Pounds	Value
EDIBLE FISHERY PRODUCTS—continued		
Fish, fresh or frozen—Continued.		
Whether or not whole—Continued.		
Sea herring:		
Fresh	47, 351, 773	$317, 122
Frozen	2, 535, 159	70, 732
Fillets, skinned, boned, sliced, or divided, not specially provided for	9, 255, 303	893, 646
Total	155, 229, 330	9, 385, 809
Fish, salted, dried, smoked, pickled, or preserved:		
Dried and unsalted:		
Cod, haddock, hake, pollock, and cusk	22, 587	1, 140
Other	3, 339, 720	370, 533
In oil or in oil and other substances:		
Sardines	35, 787, 399	4, 610, 427
Anchovies	2, 434, 192	833, 596
Antipasto	194, 722	81, 216
Tuna	6, 843, 487	1, 098, 549
Other	517, 271	114, 026
Not in oil or in oil and other substances:		
In airtight containers weighing, with contents, not over 15 pounds each:		
Anchovies	1, 462, 647	136, 090
Salmon	2, 323, 828	150, 270
Herring and sardines	12, 880, 711	994, 155
Fish cakes, balls, and pudding	2, 030, 099	135, 318
Other	1, 234, 027	137, 426
Pickled or salted:		
Not in oil, etc., and not in airtight containers weighing, with contents, 15 pounds or less each:		
Salmon	265, 113	29, 460
Cod, haddock, hake, pollock, and cusk, neither skinned nor boned (except that vertebral column may be removed):		
Containing not more than 43 percent moisture by weight	3, 152, 214	160, 428
Containing more than 43 percent moisture by weight	52, 359, 316	1, 537, 784
Cod, haddock, hake, pollock and cusk, skinned or boned	2, 475, 519	239, 463
Herring, in bulk or in containers	37, 671, 529	1, 815, 700
Mackerel, in bulk or in containers weighing, with contents, more than 15 pounds each (net weight)	4, 868, 976	256, 061
Alewives, in bulk or in containers weighing, with contents, more than 15 pounds each (net weight)	104, 357	2, 333
Pickled or salted, not specially provided for:		
In bulk or in containers weighing, with contents, more than 15 pounds each (net weight)	1, 024, 915	69, 606
In containers (not airtight) weighing, with contents, not more than 15 pounds each	5, 451	356
Smoked or kippered:		
Not in oil, etc., and not in airtight containers weighing, with contents, 15 pounds or less each:		
Salmon	34, 474	10, 717
Herring:		
Whole or beheaded	2, 164, 606	82, 076
Eviscerated, split, skinned, boned, or divided	1, 252, 161	103, 640
Cod, haddock, hake, pollock, and cusk:		
Whole, or beheaded, or eviscerated or both	930, 854	92, 960
Filleted, skinned, boned, sliced, or divided	1, 830, 688	182, 028
Smoked or kippered, not specially provided for	18, 443	1, 160
Fish paste and fish sauce	124, 629	35, 298
Prepared or preserved, not specially provided for:		
In containers weighing, with contents, not more than 15 pounds each	22, 680	2, 238
In bulk or in containers weighing, with contents, more than 15 pounds each (net weight)	336, 733	23, 812
Total	177, 713, 348	13, 307, 866
Caviar and other fish roe:		
Not boiled, etc.:		
Sturgeon	309, 053	330, 430
Fish roe, not specially provided for	80, 766	15, 469
Boiled, packed in airtight containers	81, 120	8, 230
Total	470, 939	354, 129
Shellfish:		
Crab meat, crab sauce, and crab paste	9, 018, 724	2, 927, 547
Clams, clam juice, or either in combination with other substances, in airtight containers	1, 019, 849	218, 744
Oysters, oyster juice, or either in combination with other substances in airtight containers	133, 128	30, 375

Imports of fishery products entered for consumption, 1936—Continued

Item	Pounds	Value
EDIBLE FISHERY PRODUCTS—continued		
Shellfish—Continued.		
Lobsters (including spiny lobsters and crawfish):		
Not canned	11, 121, 533	$2, 487, 211
Canned	864, 915	470, 822
Clams not in airtight containers	4, 574, 473	61, 603
Shrimp and prawn	808, 902	91, 211
Scallops	2, 652, 575	394, 936
Oysters, not in airtight containers	3, 246, 086	111, 197
Shellfish, not specially provided for	3, 513, 431	451, 137
Pastes and sauces of shellfish, not specially provided for	159, 092	23, 260
Crabs	8, 855	1, 193
Turtles	670, 387	39, 399
Total	37, 791, 950	7, 308, 635
Total edible fishery products	371, 205, 567	30, 356, 439
NONEDIBLE FISHERY PRODUCTS		
Marine-animal oils:	*Quantity*	
Cod oil ...gallons	2, 799, 694	1, 005, 675
Cod-liver oil ...do	5, 789, 574	3, 546, 733
Eulachon oil ...do	493	249
Herring oil ...do	4, 295	982
Seal oil ...do	556	216
Sod oil ...do	67, 521	21, 273
Whale oil:		
Sperm, crude ...do	1, 364, 412	327, 675
Sperm, refined or otherwise processed ...do	39, 059	13, 524
Whale oil, not specially provided for ...do	2, 342, 598	493, 764
Other marine-animal and fish oils ...do	99, 355	27, 302
Total ...do	12, 507, 557	5, 437, 393
Pearls and imitation pearls:		
Pearls and parts, not strung or set		743, 738
Imitation pearls, half pearls and hollow or filled		22, 244
Imitation pearl beads:		
Hollow or filled		39, 952
Other solid imitation pearl beads:		
Valued at not more than ¼ cent per inch ...inches	98, 306, 575	73, 503
Valued at more than ¼, but not more than 1 cent per inch ...do	620, 438	3, 569
Valued at more than 1, but not more than 5 cents per inch ...do	2, 376	33
Total		883, 039
Shells and buttons of pearl or shell:		
Shells, unmanufactured:		
Green snail shell ...pounds	284, 470	51, 347
Mother-of-pearl ...do	9, 349, 360	2, 010, 899
Shells, not specially provided for ...do	2, 398, 628	21, 117
Shells and mother-of-pearl, engraved, cut, ornamented, or manufactured		38, 325
Shell pearl buttons:		
Ocean ...gross	474, 904	126, 736
Fresh water ...do	143, 520	33, 645
Buttons (from Philippine Islands) ...do	677, 657	217, 832
Buttons, blank, not turned, faced, or drilled ...do	694	137
Total		2, 500, 038
Sponges:		
Sheepswool ...pounds	195, 100	314, 257
Yellow, grass, or velvet ...do	339, 133	159, 126
Other ...do	70, 722	87, 466
Manufactures of ...do	728	889
Total ...do	605, 683	561, 738
Agar agar ...do	625, 309	274, 688
Ambergris ...do	63	6, 878
Cod-liver oil cake and cod-liver oil cake meal ...do	1, 794, 159	47. 094
Cuttlefish bone ...do	345, 017	51, 701
Goldfish, and other aquarium fish		52, 464
Fish for other than human consumption, not elewhere specified		14, 140
Fish sounds ...pounds	100, 391	17, 454
Fish scrap and fish meal ...tons	43, 722	1, 389, 641
Isinglass ...pounds	67, 564	30, 943
Kelp ...do	392, 408	5, 531
Skins, fish, raw or salted ...do	1, 177, 364	73, 633
Skins, seal, raw (not fur skins) ...do	1, 476, 224	143, 486

Imports of fishery products entered for consumption, 1936—Continued

Item	Quantity	Value
NONEDIBLE FISHERY PRODUCTS—continued		
Spermaceti wax, pounds	181,297	$25,073
Whalebone, unmanufactured		247
Whalebone, manufactures of		940
Total		2,133,913
Total, nonedible fishery products		11,516,121
Grand total		41,872,560

FISHERIES OF THE NEW ENGLAND STATES

(Area XXII) [4]

The most recent complete fishery statistics for the New England States (Maine, New Hampshire, Massachusetts, Rhode Island, and Connecticut) are those collected for the year 1935. In that year the yield of the commercial fisheries amounted to 655,430,400 pounds, valued at $17,983,594 to the fishermen, representing an increase of 31 percent in volume, and 33 percent in value as compared with the catch in 1933, the most recent previous year for which statistics are available. Detailed statistics of these fisheries for 1935 appear in "Fishery Industries of the United States, 1936," appendix I to the Report of the United States Commissioner of Fisheries, 1937. A summary of these fisheries as well as statistics of the vessel fisheries at the principal New England ports for 1936 and the mackerel fishery of the Atlantic coast for 1936 appear in the following tables.

Fisheries of the New England States, 1935

OPERATING UNITS: BY STATES

Item	Maine	New Hampshire	Massachusetts	Rhode Island	Connecticut	Total
	Number	*Number*	*Number*	*Number*	*Number*	*Number*
Fishermen:						
On vessels	490		3,904	280	349	5,023
On boats and shore:						
Regular	2,823	45	2,849	429	276	6,422
Casual	3,202	164	1,971	874	793	7,004
Total	6,515	209	8,724	1,583	1,418	18,449
Vessels:						
Steam			29	7	3	39
Net tonnage			4,950	200	827	5,977
Motor	91		340	70	81	582
Net tonnage	992		12,873	804	1,405	16,074
Total vessels	91		369	77	84	621
Total net tonnage	992		17,823	1,004	2,232	22,051
Boats:						
Motor	2,321	43	1,374	460	259	4,457
Other	1,737	28	1,666	666	526	4,623
Accessory boats	183		562	86	26	857
Apparatus:						
Purse seines:						
Mackerel	26		74	1		101
Length, yards	5,075		34,395	300		39,770

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[4] This is the number given this area by the North American Council on Fishery Investigations. It should be explained that there are included under this area craft whose principal fishing ports are in the area but at times fish elsewhere. Notable examples are the groundfish fishery in area XXI and the mackerel and southern trawl fisheries in area XXIII. For a clearer understanding of the statistics published in this section, the reader is referred to the section in the latter part of this document entitled "Statistical survey procedure."

Fisheries of the New England States, 1935—Continued

OPERATING UNITS: BY STATES—Continued

Item	Maine	New Hampshire	Massachusetts	Rhode Island	Connecticut	Total
Apparatus—Continued.						
Purse seines—Continued.	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Menhaden				1		1
Length, yards				400		400
Other	53		2			55
Length, yards	5, 005		800			5, 805
Haul seines	66		14	9	51	140
Length, yards	6, 425		1, 472	687	5, 010	13, 594
Gill nets:						
Anchor	1, 090		2, 187	5		3, 282
Square yards	322, 131		792, 580	14, 160		1, 128, 871
Drift	187	3	2, 620	49	48	2, 907
Square yards	49, 003	540	1, 340, 644	36, 380	66, 867	1, 493, 434
Stake	125				5	130
Square yards	13, 146				840	13, 986
Lines:						
Hand	5, 566	677	213	145	107	6, 708
Hooks and baits	5, 667	677	374	179	125	7, 022
Trawl	28, 514	100	30, 987	71	618	60, 290
Hooks	1, 510, 100	5, 000	1, 661, 115	30, 155	21, 672	3, 228, 042
Troll				45		45
Hooks				45		45
Trot with hooks				1	4	5
Hooks				200	700	900
Pound nets			120	43	14	177
Floating traps	25		32	39		96
Weirs	181		3			184
Fyke nets	49		16	127	111	303
Dip nets	96		90		231	417
Bag nets	126	22				148
Push nets			40			40
Otter trawls	49		292	59	79	479
Yards at mouth	1, 085		8, 502	1, 489	2, 133	13, 209
Box traps	10					10
Pots:						
Crab	1, 947		4, 123	37		6, 107
Eel	125		933	982	966	3, 006
Fish					12	12
Lobster	184, 592	3, 287	58, 419	25, 255	17, 884	289, 437
Periwinkle and cockle			50	1, 174		1, 224
Harpoons	86		60	47	26	219
Spears	5		16	19	10	50
Dredges:						
Clam			44	19		63
Yards at mouth			22	14		36
Oyster			48	36	76	160
Yards at mouth			54	54	115	223
Scallop	154		2, 515	918		3, 587
Yards at mouth	233		2, 189	731		3, 153
Tongs:						
Oyster			34	57	10	101
Other			269	729	63	1, 061
Rakes:						
Oyster				16	2	18
Other	9		700	70	121	900
Forks			278	7		285
Hoes	1, 924	33	1, 292	86	21	3, 356

Fisheries of the New England States, 1935—Continued

CATCH: BY STATES [1]

Species	Maine		New Hampshire		Massachusetts		Rhode Island		Connecticut		Total	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	3,373,900	$17,105			958,700	$7,797	55,400	$381	17,600	$184	4,405,600	$25,467
Anchovies							3,700	74			3,700	74
Bluefish					91,300	9,713	147,500	10,972	118,300	11,783	357,100	32,468
Bonito					17,800	718	15,200	783			33,000	1,501
Butterfish	25,700	1,494			1,478,700	55,156	734,800	23,861	54,500	2,992	2,293,700	83,503
Carp									51,900	3,860	51,900	3,860
Cod	8,407,200	160,690	13,900	$525	110,633,700	2,313,898	608,100	16,090	670,900	22,890	120,333,800	2,514,093
Crevalle							1,500	15			1,500	15
Croaker					2,278,100	41,307			72,400	1,478	2,350,500	42,785
Cunner	200	6					800	4			1,000	10
Cusk	2,734,100	47,588	2,200	66	4,819,900	89,057					7,556,200	136,711
Drum, red					2,200	35					2,200	35
Eels:												
Common	95,600	7,048			105,800	7,065	162,700	13,295	55,900	5,337	420,000	32,745
Conger					110,500	1,345	1,700	149	1,200	57	113,400	1,551
Flounders	1,669,000	47,678	44,300	1,813	28,377,600	997,215	2,349,800	80,449	6,293,500	194,110	38,734,200	1,321,265
Frigate mackerel					73,500	368	8,300	134			81,800	502
Goosefish					2,300	34					2,300	34
Grayfish	300	1			30,400	686	4,600	46			35,300	733
Haddock	4,245,300	153,984	33,400	1,672	189,860,200	4,106,404			466,800	14,670	194,605,700	4,276,730
Hake	16,231,700	154,095	4,100	82	10,271,500	220,452	1,800	29	32,200	1,420	26,541,300	376,078
Halibut	44,800	5,486			2,780,500	238,708			100,000	8,000	2,925,300	252,194
Herring, sea	50,942,500	260,722			3,189,800	23,222	196,300	2,167			54,328,600	286,111
Herring smelt					13,400	253					13,400	253
Hickory shad							200	2			200	2
Kingfish or "king mackerel"									100	4	100	4
King whiting or "kingfish"					4,100	158	900	25			5,000	183
Lamprey									1,800	375	1,800	375
Launce					34,000	550	100	1			34,100	551
Mackerel	1,476,600	25,388	1,800	108	59,652,100	1,206,904	817,300	16,474	2,400	180	61,950,200	1,249,054
Menhaden					21,000	205	4,256,100	13,683	7,300	74	4,284,400	13,962
Minnows									4,500	2,409	4,500	2,409
Mummichog									6,000	1,150	6,000	1,150
Pilotfish					600	8					600	8
Pollock	5,018,400	57,466	4,500	134	28,281,100	487,661	37,500	1,113	53,000	866	33,394,500	547,240
Rosefish	47,400	379			17,109,500	183,709					17,156,900	184,088
Salmon	39,400	9,366			900	202					40,300	9,568

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[1] **Excluding seed oyster fishery.** The seed oyster fishery in this section was prosecuted in Rhode Island and Connecticut where 167 fishermen, using 28 vessels, 1 motorboat, 15 other boats, 161 dredges, and 7 tongs, took 106,243 bushels of seed oysters, valued at $42,600, from public beds, and 376,568 bushels, valued at $175,934 from private beds. Of the total number of persons fishing for seed oysters, 13 are duplicated among those fishing for market oysters or other species. Similarly the following craft and gear are duplicated: 2 vessels, 4 dredges, and 2 tongs.

Fisheries of the New England States, 1935—Continued

CATCH: BY STATES—Continued

Species	Maine		New Hampshire		Massachusetts		Rhode Island		Connecticut		Total	
FISH—continued	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Scup or porgy					4,786,000	$114,376	1,811,900	$42,361	172,800	$33,056	6,770,700	$189,793
Sea bass					3,322,100	116,333	63,000	3,479	31,000	2,173	3,416,100	121,985
Sea robin					17,500	215	219,000	2,078	39,500	707	276,000	3,000
Shad	13,000	$753			306,000	5,990	5,600	364	402,600	32,685	727,200	39,792
Sharks	36,400	390			42,200	567	2,200	44			80,800	1,001
Skates	2,500	31			7,700	105	167,100	1,403	49,900	795	227,200	2,334
Skipper or "billfish"					**300**	**3**	**200**	**2**			**500**	**5**
Smelt	682,800	79,648	42,200	$6,330	600	6	1,000	200	1,900	353	728,500	86,537
Squeteagues or "sea trout", gray					260,500	10,747	38,000	2,552	28,500	1,544	327,000	14,843
Striped bass					5,100	537	16,200	2,094	400	55	21,700	2,686
Sturgeon	900	90			2,700	303	1,400	123			5,000	516
Suckers	15,200	819							81,400	3,032	96,600	3,851
Swordfish	309,400	38,979			2,295,000	332,655	235,500	38,242	85,700	13,396	2,925,600	423,272
Tautog					38,100	1,671	165,100	5,272	55,600	3,826	258,800	10,769
Thimble-eyed mackerel							45,300	436			45,300	436
Tilefish					**700**	**16**			**160,000**	**8,000**	**160,700**	**8,016**
Tomcod	11,300	279							5,200	260	16,500	539
Tuna or "horse mackerel"	271,400	5,527			223,600	6,887	43,500	1,517			538,500	13,931
White perch	100	5			50,000	5,644	1,100	66			51,200	5,715
Whiting	12,500	76			15,454,100	160,909	1,954,500	21,387	23,900	449	17,445,000	182,821
Wolffish	75,000	848			2,849,200	55,754			10,000	100	2,934,200	56,702
Yellow perch	2,400	338					500	30			2,900	368
Total	95,785,000	1,076,277	146,400	10,730	179,824,600	10,767,598	13,275,900	391,477	9,104,100	342,870	298,136,000	12,588,952
SHELLFISH, ETC.												
Crabs:												
Hard	593,700	16,226			2,394,000	39,574	114,100	2,994	4,300	490	3,106,100	59,284
Soft and peelers									300	97	300	97
Lobsters	7,687,200	1,767,498	194,400	49,522	1,805,300	448,327	619,000	132,691	546,400	122,186	10,852,300	2,520,224
Clams:												
Hard, public [2]	1,700	152			1,241,600	140,618	2,252,100	207,883	421,400	85,666	3,916,800	434,319
Hard, private [4]					24,000	2,442	108,000	10,764	7,900	2,889	139,900	16,095
Razor					583,000	13,682					583,000	13,682
Soft, public [3]	6,969,000	286,484	13,300	1,337	2,488,100	248,155	300,200	19,742	30,700	5,045	9,801,300	560,763
Surf or skimmer					800	59					800	59
Mussels, sea	**117,100**	**2,875**									**117,100**	**2,875**
Oysters, market: [5]												
Public, spring					**3,300**	**625**	**28,800**	**4,930**	**1,600**	**145**	**33,700**	**5,700**
Public, fall							29,700	5,467	800	135	30,500	5,602

Private, spring	----------	----------	----------	----------	266,800	77,234	2,374,000	238,129	1,933,000	255,062	4,573,800	570,425
Private, fall	----------	----------	----------	----------	----------	----------	2,794,500	276,215	2,571,700	352,300	5,366,200	628,515
Periwinkles and cockles	3,000	90	----------	----------	2,700	345	153,200	6,722	----------	----------	158,900	7,157
Scallops:												
Bay	----------	----------	----------	----------	1,142,300	199,764	74,700	11,495	287,500	50,000	1,504,500	261,259
Sea	743,200	115,620	----------	----------	924,300	115,089	2,600	247	----------	----------	1,670,100	230,956
Squid	----------	----------	----------	----------	2,149,600	27,717	1,388,100	29,206	5,800	125	3,543,500	57,048
Irish moss	----------	----------	----------	----------	7,500	300	----------	----------	----------	----------	7,500	300
Bloodworms	227,800	34,653	----------	----------	55,500	2,665	----------	----------	----------	----------	283,300	37,318
Sandworms	65,500	9,173	----------	----------	504,000	23,300	----------	----------	----------	----------	569,500	32,473
Sea urchins	35,000	200	----------	----------	----------	----------	----------	----------	----------	----------	35,000	200
Total	16,434,000	2,232,965	207,700	50,860	13,592,800	1,340,293	10,248,000	946,424	5,811,600	874,100	46,294,100	5,444,642
Grand total	112,219,000	3,309,242	354,100	61,590	503,417,400	12,147,891	24,523,900	1,247,901	14,916,000	1,216,970	655,430,400	17,983,594

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[2] Statistics on hard clams used in this table are based on yields of 11 pounds of meat per bushel in Maine; 11.01 pounds in Massachusetts; 16 pounds in Rhode Island, and 10 pounds in Connecticut.

[3] Statistics on soft clams used in this table are based on yields of 15 pounds of meat per bushel in Maine and New Hampshire; 13.64 pounds in Massachusetts; 20 pounds in Rhode Island, and 14.94 pounds in Connecticut.

[4] Statistics on oysters used in this table are based on yields of 6.57 pounds of meat in Massachusetts; 7.31 pounds in Rhode Island; and 8 pounds in Connecticut.

NOTE. Included in the catch of Massachusetts are 15,098,600 pounds of fishery products, valued at $165,905, which were taken in the southern winter trawl fishery off southern New Jersey, Maryland, Virginia, and North Carolina. These products consisted principally of croakers, flounders, scup, and sea bass.

Industries related to the fisheries of the New England States

OPERATING UNITS, SALARIES, AND WAGES, 1935

Item	Maine and New Hampshire	Massachusetts	Rhode Island	Connecticut	Total
Transporting:					
Persons engaged:	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	62	45	3	14	124
On boats	15		3		18
Total	77	45	6	14	142
Vessels, motor	31	11	2	6	50
Net tonnage	364	314	15	216	909
Boats	12		3		15
Wholesale and manufacturing:					
Establishments	149	170	31	30	380
Persons engaged:					
Proprietors	108	102	27	28	265
Salaried employees	195	443	36	44	718
Wage earners:					
Average for season	5, 034	3, 787	383	374	9, 578
Average for year	2, 012	2, 983	276	230	5, 501
Paid to salaried employees	$318, 559	$948, 553	$92, 299	$121, 401	$1, 480, 812
Paid to wage earners	$1, 241, 799	$3, 344, 633	$230, 077	$159, 135	$4, 975, 644
Total salaries and wages	$1, 560, 358	$4, 293, 186	$322, 376	$280, 536	$6, 456, 456
Fishermen manufacturing	1, 273	2, 181	337	1	3, 792

Industries related to the fisheries of the New England States—Continued

PRODUCTS MANUFACTURED

Item	Maine		Massachusetts		Rhode Island		Connecticut	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
By manufacturing establishments:								
Alewives, salted, tight-pack ....pounds....	1,536,880	$37,985	----------	----------	----------	----------	----------	----------
Cod:								
Fresh fillets [1] ....do....	91,784	7,384	6,032,272	$664,307	----------	----------	----------	----------
Fresh sticks [1] ....do....	380,607	35,807	----------	----------	----------	----------	----------	----------
Frozen fillets [1] ....do....	316,675	27,193	7,734,258	738,343	----------	----------	----------	----------
Salted:								
Green [2] ....do....	950,998	45,499	(3)	(3)	----------	----------	----------	----------
Dry ....do....	26,465	1,064	(3)	(3)	----------	----------	----------	----------
Boneless, including absolutely boneless......do....	167,084	24,632	5,526,395	1,003,811	----------	----------	----------	----------
Oil, cod [1] ....gallons..	13,792	5,286	(3)	(3)	----------	----------	----------	----------
Oil, cod liver [1] ....do....	(3)	(3)	267,529	163,856	----------	----------	----------	----------
Cusk:								
Fresh fillets [1] ....pounds..	76,658	7,882	634,943	62,128	----------	----------	----------	----------
Fresh sticks [1] ....do....	466,399	49,074	----------	----------	----------	----------	----------	----------
Frozen fillets [1] ....do....	(3)	(3)	238,428	20,130	----------	----------	----------	----------
Salted, green [2] ....do....	53,040	2,072	(3)	(3)	----------	----------	----------	----------
Smoked fillets ....do....	82,005	10,801	----------	----------	----------	----------	----------	----------
Flounders:								
Fresh fillets [1] ....do....	(3)	(3)	1,326,231	187,428	----------	----------	----------	----------
Frozen fillets [1] ....do....	43,908	5,048	655,233	98,397	----------	----------	----------	----------
Haddock:								
Fresh fillets [1] ....do....	100,541	17,897	16,144,584	1,822,229	----------	----------	----------	----------
Frozen fillets [1] ....do....	206,855	19,472	22,588,491	2,132,085	----------	----------	----------	----------
Fresh sticks [1] ....do....	22,850	4,108	----------	----------	----------	----------	----------	----------
Salted, green [2] ....do....	6,250	131	----------	----------	----------	----------	----------	----------
Hake:								
Fresh fillets [1] ....do....	165,232	16,466	1,154,703	104,527	----------	----------	----------	----------
Frozen fillets [1] ....do....	(3)	(3)	1,854,757	127,187	----------	----------	----------	----------
Fresh sticks [1] ....do....	439,535	44,529	----------	----------	----------	----------	----------	----------
Salted:								
Green [2] ....do....	1,575,831	44,842	(3)	(3)	----------	----------	----------	----------
Dry ....do....	452,926	12,544	1,634,966	84,906	----------	----------	----------	----------
Smoked fillets ....do....	78,245	9,968	----------	----------	----------	----------	----------	----------

See footnotes at end of table.

Industries related to the fisheries of the New England States—Continued

PRODUCTS MANUFACTURED—Continued

Item	Maine		Massachusetts		Rhode Island		Connecticut	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
By manufacturing establishments—Contd.								
Herring, sea:								
Salted, split ... pounds	1,085,787	$35,848						
Smoked:								
Bloaters, hard ... do	171,780	7,001	(3)	(3)				
Bloaters, soft ... do	113,946	6,522	(3)	(3)				
Boneless ... do	2,603,604	275,654						
Lengthwise ... do	117,105	7,083						
Medium scaled ... do	345,300	22,488	(3)	(3)				
Kippered ... do			118,520	$14,004				
Canned "sardines" [1] ... standard cases	1,845,860	5,740,454						
Meal [1] ... tons	2,587	71,343						
Oil [1] ... gallons	60,413	8,313						
Mackerel:								
Fresh fillets [1] ... pounds			131,350	12,517				
Frozen fillets [1] ... do			392,189	38,230				
Salted:								
Fillets ... do			1,874,480	152,083				
Split ... do			2,459,507	196,157				
Pollock:								
Fresh fillets [1] ... do	55,804	4,602	2,265,637	160,481				
Frozen fillets [1] ... do	346,120	22,872	12,225,791	776,245				
Fresh sticks [1] ... do	48,000	3,810						
Salted:								
Green [2] ... do	98,946	3,953	(3)	(3)				
Dry ... do	16,791	797	(3)	(3)				
Rosefish:								
Fresh fillets [1] ... do	(3)	(3)	3,941,008	374,187				
Frozen fillets [1] ... do			11,574,371	1,139,109				
Whiting:								
Frozen fillets [1] ... do			2,518,628	122,381				
Frozen sticks [1] ... do			6,278,613	314,438				
Fresh and frozen split butterfly [1] ... do			149,775	8,350				
Wolffish:								
Fresh fillets [1] ... do			22,666	2,549				
Frozen fillets [1] ... do	(3)	(3)	173,565	18,658				
Crab meat, packaged, fresh cooked ... do	70,067	34,328	257,576	109,166	(3)	(3)		
Lobster meat, packaged, fresh cooked ... do	(3)	(3)	111,900	117,885	(3)	(3)		
Clams, hard, fresh shucked ... gallons					33,560	$43,072		

Clams, soft:								
Fresh shucked do	43,055	43,438	99,560	135,177	11,290	11,581		
Canned:								
Whole [1] standard cases	105,672	373,773						
Juice, bouillon and cocktail [1] do	15,875	24,595						
Chowder [1] do	62,339	194,952	(3)	(3)				
Marine-shell buttons [1] gross	(3)	(3)	(3)	(3)			1,650,453	$1,054,719
Oysters, fresh shucked gallons			(3)	(3)	426,012	656,792	322,825	467,605
Unclassified products:								
Packaged fish, fresh and frozen [1] pounds	[4] 257,345	[4] 20,935	[5] 576,800	[5] 66,104				
Salted do	[6] 253,125	[6] 14,610	[7] 6,530,189	[7] 481,551				
Smoked do	[8] 402,100	[8] 50,080	[9] 2,260,378	[9] 344,847	(10)	(10)	(10)	(10)
Canned:								
Fish cakes and flakes [1] standard cases	30,421	244,936	79,191	600,541				
Cat and dog food [1] do	(11)	(11)	40,574	79,081				
Other [1] do	[12] 6,121	[12] 30,350	[13] 48,875	[13] 353,925	(10)	(10)		
Meal, groundfish tons	(10)	(10)	14,994	652,140				
Oil, miscellaneous liver [1] gallons	(10)	(10)	[14] 12,403	[14] 604,326				
Miscellaneous [15]		[16] 254,776		[17] 978,790		[18] 107,025		[19] 146,660
Total		7,927,197		15,062,256		818,470		1,668,984
By fishermen:								
Alewives, smoked pounds	117,258	3,062	5,000	250				
Cod:								
Fresh fillets do	360	22						
Salted, green [2] do			406,500	10,975				
Salted, dry do	4,300	272						
Cusk, salted, green [2] do			1,000	20				
Haddock, salted, green [2] do			20,600	410				
Hake:								
Fresh fillets do	2,827	254						
Salted, green [2] do			5,000	50				
Herring, sea, smoked, bloaters, soft do	1,000	106						
Mackerel, salted, split do			18,000	675				
Pollock, salted, dry do	5,000	400						
Crab meat, packaged, fresh cooked do	1,070	412	10,900	5,230	3,000	1,200		
Clams, hard, fresh shucked gallons					25	44		
Clams, razor, fresh shucked do			30,915	13,132				
Clams, soft:								
Fresh shucked do	68,647	49,073	15,504	18,792	400	700		
Steamed pounds	228,873	19,494						
Oysters, fresh shucked gallons			4,200	7,383				

See footnotes at end of table.

Industries related to the fisheries of the New England States—Continued

PRODUCTS MANUFACTURED—Continued

Item	Maine		Massachusetts		Rhode Island		Connecticut	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
By fishermen—Continued.								
Scallops:								
Bay, fresh shucked……gallons			123, 528	$357, 700	8, 301	$27, 863		
Sea, fresh shucked……do	42, 900	$71, 156	63, 007	91, 286			45	$59
Total		144, 251		505, 903		29, 807		59
Grand total		8, 071, 448		15, 568, 159		848, 277		1, 669, 043

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[1] Data are for 1936.

[2] This item is usually an intermediate product, and although included in the total, may also be shown in its final stage of processing in this or another State.

[3] This item has been included under "Unclassified products."

[4] Includes fresh fillets of flounder and frozen fillets of cusk, rosefish, wolffish, and hake.

[5] Includes fresh fillets of halibut and whiting; frozen fillets of bluefish, halibut, and salmon; fresh steaks of cod, haddock, halibut, pollock, salmon, and swordfish; and frozen steaks of cod, halibut, pollock, salmon, swordfish, and wolffish.

[6] Includes salted fillets of hake and sea herring; dry-salted cusk; and salted boneless hake and whole sea herring.

[7] Includes dry-salted cod, pollock, and haddock; green-salted cod, cusk, pollock, and hake; salted boneless cusk and hake; whole and pickled sea herring, and strips and bits of cod.

[8] Includes smoked fillets of cod, haddock, and sea herring; and finnan haddie.

[9] Includes smoked alewives, butterfish, carp, cod fillets, haddock (finnan haddie), lake trout, mackerel, salmon, sea herring (medium-scaled, and hard and soft bloaters), shad, and whitefish; and smoked and spiced salmon.

[10] This item has been included under "Miscellaneous."

[11] This item has been included under "Other" canned products.

[12] Includes canned alewife roe, finnan haddie, mackerel, fish chowder, clam cakes, and cat and dog food.

[13] Includes canned groundfish roe, mackerel, finnan haddie, fish chowder, fiskeboller, hard and soft clam chowder, and rat poison bait.

[14] Includes halibut, swordfish, tuna, sablefish, "lingcod," and mixed liver oils.

[15] Both 1935 and 1936 data are included in these items.

[16] Includes fresh-cooked lobster meat; fresh-shucked sea mussels; herring dry scrap; soft clam, groundfish, miscellaneous fish and waste fish meals; cod-liver oil; marine-shell buttons and pearl essence.

[17] Includes fresh-shucked oysters, cod and rosefish oil, cod liver pressings, groundfish dry scrap, glue, isinglass, and marine-shell buttons and novelties.

[18] Includes fresh-cooked lobster meat, fresh-cooked packaged crab meat, finnan haddie, canned hard clam chowder, oyster-shell poultry feed and lime, and marine-shell novelties.

[19] Includes smoked butterfish, carp, lake trout, mackerel, salmon, whitefish, and paddlefish or spoonbill cat; and marine-shell novelties.

NOTE.—Unless otherwise indicated the data are for 1935. The total value of manufactured products for the New England States was as follows: By manufacturing establishments, $25,476,907; and by fishermen $680,020. Some of the above products may have been manufactured from products imported from another State or a foreign country, therefore they cannot be correlated directly with the catch within the State. Of the total number of persons engaged in the preparation of fishermen's manufactured products, 3,664 have also been included as fishermen, and 8 of the persons shown on transporting craft have also been included as fishermen. This should be considered when computing the total number of persons in the fishery industries exclusive of duplication.

VESSEL FISHERIES AT PRINCIPAL NEW ENGLAND PORTS

Due to the importance of the ports of Boston and Gloucester, Mass., and Portland, Maine, as landing points for fishery products, detailed monthly statistics are collected for these landings which are published in the following sections.

ECONOMIC ASPECT

The landings of fishery products at the three principal New England ports (Boston and Gloucester, Mass., and Portland, Maine), by vessels of 5 net tons capacity or more, during 1936, amounted to 414,767,145 pounds as landed, valued at $11,143,545. This is an increase of 11 percent in the quantity of the catch as compared with 1935, and an increase of 24 percent in the value of the catch. The landings at Boston accounted for 339,224,764 pounds, valued at $9,588,115 or 82 percent of the total volume; the landings at Gloucester amounted to 59,413,534 pounds, valued at $1,171,681, or 14 percent of the total; and the landings at Portland amounted to 16,128,847 pounds, valued at $383,749, or 4 percent of the total.

Among the landings of fresh fish, haddock far outranked other species in volume landed. Landings of all sizes in 1936 amounted to 143,878,750 pounds, or 35 percent of the total fresh fish.

Landings by fishing vessels at the three principal New England ports, 1936

BOSTON: BY MONTHS

Species	January		February		March		April		May		June		July	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Cod, fresh:														
Large	1, 649, 340	$77, 988	1, 836, 735	$105, 215	5, 914, 735	$161, 625	4, 910, 625	$98, 835	2, 583, 070	$51, 371	1, 670, 862	$45, 604	1, 865, 615	$50, 552
Market	1, 854, 874	71, 684	1, 239, 582	58, 859	3, 410, 191	100, 571	3, 005, 990	65, 109	2, 086, 895	44, 484	3, 311, 410	77, 296	4, 703, 415	106, 120
Scrod	131, 425	4, 659	40, 460	1, 348	30, 970	858	22, 225	428	54, 060	887	125, 150	2, 174	339, 690	5, 501
Haddock, fresh:														
Large	6, 729, 612	303, 685	8, 881, 685	416, 895	16, 483, 460	534, 576	13, 568, 260	322, 962	8, 584, 551	217, 864	6, 805, 960	207, 095	6, 845, 715	197, 779
Scrod	2, 244, 335	80, 032	1, 348, 220	56, 598	2, 401, 610	72, 436	3, 194, 900	63, 286	3, 639, 188	70, 663	4, 407, 250	86, 212	3, 651, 852	79, 583
Hake, fresh:														
Large	803, 891	33, 227	442, 240	26, 371	540, 605	20, 839	416, 425	14, 425	629, 685	10, 201	687, 315	15, 188	892, 395	17, 678
Small	15, 200	654	46, 000	2, 283	56, 800	2, 143	9, 150	217	34, 700	646	32, 650	810	96, 275	2, 165
Pollock, fresh	1, 137, 794	36, 321	885, 880	35, 420	1, 167, 000	37, 586	1, 549, 190	36, 909	771, 130	16, 990	221, 225	5, 325	466, 070	10, 747
Cusk, fresh	434, 200	15, 133	273, 425	11, 736	540, 275	14, 331	398, 390	7, 196	426, 790	6, 059	254, 210	5, 074	405, 390	7, 523
Halibut, fresh	93, 107	4, 714	110, 379	14, 704	238, 232	32, 961	304, 048	31, 287	341, 721	27, 843	280, 874	23, 495	206, 739	23, 553
Mackerel, fresh	----------	----------	----------	----------	60	9	644, 915	19, 242	3, 526, 930	83, 428	5, 667, 445	116, 847	4, 615, 815	101, 798
Flounders, fresh	1, 076, 424	46, 230	1, 840, 846	75, 033	1, 365, 650	47, 521	1, 037, 090	41, 512	1, 700, 280	42, 298	1, 376, 445	40, 987	816, 593	35, 458
Swordfish, fresh	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	111, 793	32, 788	440, 455	94, 287
Wolffish, fresh	85, 096	2, 796	145, 505	5, 147	284, 250	7, 528	525, 055	10, 339	348, 595	6, 433	96, 715	2, 615	72, 425	2, 046
Rosefish, fresh	1, 062, 439	13, 591	1, 445, 324	26, 865	1, 954, 710	37, 774	2, 610, 338	53, 920	5, 173, 713	65, 618	3, 890, 366	41, 456	2, 824, 844	39, 074
Herring, fresh	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	400	6
Other, fresh	16, 115	1, 030	42, 085	2, 764	110, 915	4, 855	44, 690	1, 617	1, 315, 850	27, 608	3, 627, 670	67, 579	3, 983, 543	64, 925
Total, fresh	17, 333, 852	691, 744	18, 578, 366	839, 238	34, 499, 463	1,075,613	32, 241, 291	767, 284	31, 217, 158	672, 393	32, 567, 340	770, 455	32, 227, 231	838, 795
Landed in 1935:														
Fresh	17, 836, 595	597, 211	22, 502, 386	508, 048	29, 841, 841	713, 032	31, 105, 712	614, 961	29, 465, 482	578, 009	26, 374, 297	509, 095	29, 923, 592	673, 591

NOTE.—The weights of fresh and salted fish given in these statistics represent the fish as landed from the vessels, and the values are those received by the fishermen. Large cod are classified as those weighing over 10 pounds; market cod, 2½ to 10 pounds; and scrod cod, 1 to 2½ pounds. Large haddock are those weighing over 2½ pounds and scrod haddock, 1 to 2½ pounds. Large hake are those weighing over 6 pounds and small hake, under 6 pounds. Only landings by vessels having a capacity of 5 net tons or greater are used in this tabulation.

Species	August		September		October		November		December		Total, 1936		1935	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Cod, fresh:														
Large	1, 406, 280	$48, 219	1, 282, 080	$57, 898	1, 576, 683	$67, 390	2, 415, 100	$77, 288	2, 405, 203	$69, 873	29, 516, 328	$911, 858	30, 628, 143	$836, 063
Market	3, 438, 980	82, 612	2, 767, 160	77, 543	3, 189, 185	86, 411	3, 185, 737	88, 174	3, 729, 610	96, 931	35, 923, 029	955, 794	39, 397, 774	846, 155
Scrod	525, 400	9, 464	734, 025	15, 535	945, 975	18, 808	699, 045	15, 263	767, 560	15, 598	4, 415, 985	90, 523	718, 175	15, 929
Cod, salted:														
Large					1, 020	33					1, 020	33	5, 100	135
Market					135	3					135	3		
Haddock, fresh:														
Large	7, 301, 215	211, 594	7, 005, 200	240, 370	6, 097, 545	237, 434	4, 989, 945	219, 797	4, 299, 705	196, 625	97, 592, 853	3, 306, 586	100, 634, 558	2, 690, 924
Scrod	4, 830, 052	107, 626	5, 489, 060	129, 495	3, 584, 764	93, 368	1, 505, 160	48, 670	1, 875, 065	49, 644	38, 171, 456	937, 613	47, 150, 705	1, 003, 161
Hake, fresh:														
Large	999, 435	18, 369	541, 385	13, 871	759, 635	21, 202	632, 830	19, 778	652, 020	18, 689	7, 997, 861	229, 838	7, 404, 480	178, 775
Small	120, 780	2, 683	133, 375	4, 094	137, 700	4, 465	65, 330	2, 371	46, 650	1, 626	794, 610	24, 157	693, 517	17, 309
Hake, salted:														
Large					75	1					75	1		
Pollock, fresh	427, 500	9, 678	956, 110	21, 277	1, 168, 710	24, 672	3, 145, 115	57, 496	2, 264, 085	43, 347	14, 159, 809	335, 768	13, 754, 147	276, 938
Cusk, fresh	681, 435	11, 510	502, 490	10, 601	629, 078	14, 000	468, 195	11, 803	786, 789	17, 117	5, 800, 667	132, 083	3, 877, 030	76, 209
Halibut, fresh	130, 012	13, 316	141, 594	18, 861	146, 319	18, 180	35, 877	4, 291	30, 981	4, 862	2, 059, 883	218, 067	2, 036, 267	205, 412
Mackerel, fresh	2, 773, 395	77, 601	1, 673, 946	68, 153	846, 600	46, 088	926, 885	55, 852	336, 715	26, 055	21, 012, 706	595, 073	27, 014, 236	540, 095
Mackerel, salted	865	24									865	24		
Flounders, fresh	651, 185	33, 959	620, 365	33, 830	877, 240	47, 782	1, 256, 605	57, 609	1, 261, 841	52, 210	13, 880, 564	554, 429	13, 499, 643	436, 231
Swordfish, fresh	484, 432	86, 320	158, 618	38, 204	222	56					1, 195, 520	251, 655	2, 024, 199	359, 409
Wolffish, fresh	71, 245	2, 325	60, 595	1, 932	56, 945	2, 051	42, 960	1, 436	130, 695	2, 107	1, 920, 081	46, 755	2, 048, 570	49, 586
Rosefish, fresh	3, 310, 567	51, 267	6, 925, 154	106, 111	6, 983, 675	111, 569	7, 117, 832	98, 239	6, 120, 052	74, 747	49, 419, 014	720, 231	14, 144, 274	150, 305
Herring, fresh											400	6	4, 000	25
Other, fresh	2, 790, 480	44, 985	2, 147, 770	35, 060	1, 012, 440	20, 324	232, 060	5, 888	38, 285	983	15, 361, 903	277, 618	2, 337, 144	50, 081
Total, fresh	29, 942, 393	811, 528	31, 138, 927	872, 835	28, 012, 716	813, 800	26, 718, 676	763, 955	24, 745, 256	670, 414	339, 222, 669	9, 588, 054	307, 366, 862	7, 732, 607
Total, salted	865	24			1, 230	37					2, 095	61	5, 100	135
Grand total	29, 943, 258	811, 552	31, 138, 927	872, 835	28, 013, 946	813, 837	26, 718, 676	763, 955	24, 745, 256	670, 414	339, 224, 764	9, 588, 115	307, 371, 962	7, 732, 742
Landed in 1935:														
Fresh	26, 090, 820	691, 014	26, 828, 264	742, 930	26, 448, 105	758, 620	20, 006, 946	632, 863	20, 942, 822	713, 233			307, 366, 862	7, 732, 607
Salted			5, 100	135									5, 100	135
Total	26, 090, 820	691, 014	26, 833, 364	743, 065	26, 448, 105	758, 620	20, 006, 946	632, 863	20, 942, 822	713, 233			307, 371, 962	7, 732, 742

Landings by fishing vessels at the three principal New England ports, 1936—Continued

GLOUCESTER: BY MONTHS

Species	January		February		March		April		May		June		July	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Cod, fresh:														
Large	56, 235	$3, 269	95, 035	$5, 622	641, 917	$17, 098	1, 230, 418	$29, 400	1, 299, 299	$29, 989	776, 025	$24, 386	210, 785	$5, 648
Market	40, 600	1, 412	10, 660	514	231, 600	5, 579	249, 682	4, 858	160, 972	3, 171	170, 580	2, 874	171, 540	3, 920
Scrod	6, 115	126	1, 680	41	2, 710	54	1, 650	29	12, 594	260	890	8	14, 350	228
Cod, salted:														
Large					50, 000	2, 000	39, 465	1, 091	71, 630	1, 952	31, 055	901	229, 462	8, 898
Market					101, 639	3, 049	6, 730	135	24, 250	514	7, 100	155	265, 360	7, 915
Scrod					30, 866	617							40, 649	814
Haddock, fresh:														
Large	92, 995	4, 833	12, 580	708	920, 030	28, 178	810, 669	18, 337	178, 240	5, 336	189, 525	4, 438	138, 995	3, 438
Scrod	11, 725	460	3, 405	103	77, 820	2, 190	125. 907	2, 385	4, 935	89	115, 800	2, 276	53, 115	1, 163
Haddock, salted, large													2, 510	50
Hake, fresh, large	17, 580	497	24, 225	1, 074	20, 955	564	12, 461	342	34, 114	414	23, 725	358	22, 365	314
Hake, salted, large									1, 270	19			780	16
Pollock, fresh	663, 325	18, 373	880	37	62, 995	1, 611	72, 596	1, 590	50, 068	1, 044	19, 040	335	187, 355	4, 675
Cusk, fresh	655	20	18, 520	821	10, 135	236	34, 620	444	15, 325	173	1, 700	21	36, 745	549
Halibut, fresh			59	9	520	62	1, 967	283	1, 906	226	2, 300	203	17, 660	1, 133
Halibut, salted									13, 685	781	2, 210	111		
Mackerel, fresh							39, 000	780	357, 375	5, 675	1, 095, 725	17, 636	2, 068, 010	32, 584
Mackerel, salted											75, 990	1, 477	13, 765	499
Flounders, fresh	57, 820	2, 901	41, 050	2, 029	56, 355	1, 711	38, 488	1, 159	88, 946	2, 274	51, 795	1, 351	44, 325	1, 396
Swordfish, fresh											1, 256	402	230	37
Wolffish, fresh	2, 920	95	1, 645	53	22, 235	499	18, 787	335	6, 690	97	3, 870	73	3, 025	58
Rosefish, fresh	19, 675	198	67, 895	960	147, 423	2, 621	515, 400	9, 816	2, 422, 440	33, 618	1, 710, 410	18, 899	1, 196, 430	16, 796
Herring, frozen					276, 690	5, 534								
Herring, salted	247, 104	7, 624							74, 700	2, 054				
Other, fresh	150	1	1, 865	23	5, 865	106	3, 155	40	220, 671	6, 980	668, 945	14, 637	246, 562	6, 475
Total, fresh	969, 795	32, 185	279, 499	11, 994	2, 200, 560	60, 509	3, 154, 800	69, 798	4, 853, 575	89, 346	4, 831, 586	87. 897	4, 411, 492	78, 414
Total, frozen					276, 690	5, 534								
Total, salted	247, 104	7, 624			182, 505	5, 666	46, 195	1, 226	185, 535	5, 320	116, 355	2, 624	552, 526	18, 192
Grand total	1, 216, 899	39, 809	279, 499	11, 994	2, 659, 755	71, 709	3, 200, 995	71, 024	5, 039, 110	94, 666	4, 947, 941	90, 521	4, 964, 018	96, 606
Landed in 1935:														
Fresh	705, 645	26, 413	950, 476	21, 918	2, 046, 100	42, 168	2, 886, 630	55, 206	3, 495, 766	59, 301	5, 206, 782	69, 162	6, 114, 225	78, 679
Salted	420, 832	12, 676			12, 575	357	28, 000	845	268, 185	9, 440	85, 740	2, 204	608, 683	15, 591
Total	1, 126, 477	39, 089	950, 476	21, 918	2, 058, 675	42, 525	2, 914, 630	56, 051	3, 763, 951	68, 741	5, 292, 522	71, 366	6, 722, 908	94, 270

Species	August		September		October		November		December		Total, 1936		1935	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Cod, fresh:														
Large	20,905	$533	138,630	$6,777	162,727	$6,852	125,425	$4,046	112,808	$3,630	4,870,209	$137,250	8,669,729	$203,305
Market	73,390	1,859	195,565	5,125	160,493	4,008	122,915	2,990	95,422	2,372	1,683,419	38,682	2,236,581	29,036
Scrod	35,670	693	124,080	2,897	31,695	714	10,733	214	2,885	42	245,052	5,306	46,145	829
Cod, salted:														
Large	21,532	735	219,210	7,330	244,797	7,591	-	-	-	-	907,151	30,498	1,241,889	41,530
Market	36,383	907	2,220	53	75	2	-	-	-	-	443,757	12,710	976,184	24,403
Scrod	13,083	262	-	-	-	-	-	-	-	-	84,598	1,693	184,102	2,655
Haddock, fresh:														
Large	117,005	3,024	362,960	10,282	160,805	5,416	64,426	2,252	80,681	3,121	3,128,911	89,363	3,174,320	60,311
Scrod	109,630	2,573	197,235	4,794	101,385	2,529	12,575	266	32,070	814	845,602	19,642	1,618,865	19,097
Haddock, salted:														
Large	-	-	-	-	-	-	-	-	-	-	2,510	50	6,088	92
Scrod	-	-	-	-	-	-	-	-	-	-	-	-	60	4
Hake, fresh:														
Large	22,887	323	149,666	3,371	210,289	4,210	66,877	1,700	95,918	2,258	701,062	15,425	215,167	4,750
Small	-	-	13,000	247	17,420	285	7,870	170	11,125	214	49,415	916	9,384	183
Hake, salted:														
Large	670	13	-	-	-	-	-	-	-	-	2,720	48	2,080	46
Small	-	-	-	-	-	-	-	-	-	-	-	-	855	21
Pollock, fresh	952,330	22,299	1,206,515	22,731	3,225,383	55,833	6,827,598	94,304	3,877,880	57,507	17,145,965	280,339	13,281,759	246,592
Pollock, salted	-	-	860	10	-	-	-	-	-	-	860	10	805	17
Cusk, fresh	4,065	60	12,119	175	5,547	99	1,875	39	10,035	187	151,341	2,824	179,337	1,757
Cusk, salted	-	-	5,000	88	-	-	-	-	-	-	5,000	88	600	9
Halibut, fresh	-	-	670	58	364	45	634	53	671	44	26,751	2,116	220,126	14,186
Halibut, salted	-	-	-	-	-	-	-	-	-	-	15,895	892	4,290	348
Mackerel, fresh	1,802,615	32,866	749,268	20,212	343,740	19,613	351,465	23,222	296,075	21,765	7,103,273	174,353	13,549,499	177,102
Mackerel, salted	180,750	6,646	19,117	759	-	-	-	-	-	-	289,622	9,381	234,012	6,370
Flounders, fresh	40,665	1,598	53,535	2,503	129,839	4,643	105,683	4,072	128,564	4,020	837,065	29,657	385,428	11,821
Swordfish, fresh	-	-	-	-	-	-	-	-	-	-	1,486	439	-	-
Wolffish, fresh	2,165	49	1,655	33	2,833	51	295	7	2,285	35	68,405	1,385	185,103	2,057
Rosefish, fresh	1,931,228	28,032	2,210,086	35,196	3,181,353	49,166	2,032,572	26,968	1,658,986	20,366	17,093,898	242,636	2,895,858	32,807
Herring, fresh	-	-	-	-	1,750	16	-	-	-	-	1,750	16	-	-
Herring, frozen	-	-	-	-	-	-	-	-	-	-	276,690	5,534	-	-
Herring, salted	-	-	-	-	-	-	-	-	-	-	321,804	9,678	1,682,058	52,708
Other, fresh	1,173,384	16,797	417,709	7,128	202,843	4,546	101,599	2,613	66,575	1,404	3,109,323	60,750	264,185	2,955
Total, fresh	6,285,939	110,706	5,832,693	121,529	7,938,466	158,026	9,832,542	162,916	6,471,980	117,779	57,062,927	1,101,099	46,931,486	806,788
Total, frozen	-	-	-	-	-	-	-	-	-	-	276,690	5,534	-	-
Total, salted	252,418	8,563	246,407	8,240	244,872	7,593	-	-	-	-	2,073,917	65,048	4,333,023	128,203
Grand total	6,538,357	119,269	6,079,100	129,769	8,183,338	165,619	9,832,542	162,916	6,471,980	117,779	59,413,534	1,171,681	51,264,509	934,991
Landed in 1935:														
Fresh	5,565,335	67,512	5,075,422	81,798	6,914,615	148,063	5,262,805	95,890	2,707,685	60,678	-	-	46,931,486	806,788
Salted	369,586	11,210	634,891	17,914	492,072	14,373	-	-	1,412,459	43,593	-	-	4,333,023	128,203
Total	5,934,921	78,722	5,710,313	99,712	7,406,687	162,436	5,262,805	95,890	4,120,144	104,271	-	-	51,264,509	934,991

Landings by fishing vessels at the three principal New England ports, 1936—Continued

PORTLAND: BY MONTHS

Species	January		February		March		April		May		June		July	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Cod, fresh:														
Large	46, 865	$2, 064	62, 002	$3, 141	87, 099	$2, 660	267, 375	$5, 794	393, 756	$7, 216	517, 675	$12, 721	420, 458	$10, 714
Market	22, 003	608	30, 653	1, 153	51, 780	1, 393	281, 407	5, 295	210, 848	3, 844	388, 365	7, 296	6, 623	99
Scrod	155	1	165	1	460	4	195	3	45	------	140	------	330	3
Haddock, fresh:														
Large	86, 236	5, 000	71, 453	3, 918	78, 807	3, 453	833, 570	16, 880	1, 500, 917	29, 509	510, 669	12, 096	85, 222	3, 180
Scrod	8, 374	167	10, 085	200	7, 990	147	40, 627	664	159, 210	3, 024	250, 908	4, 700	5, 323	76
Hake, fresh:														
Large	104, 953	3, 926	93, 795	4, 805	78, 399	3, 013	87, 479	2, 626	179, 002	2, 656	339, 535	5, 694	302, 518	5, 239
Small	190	2	828	18	2, 585	47	4, 880	54	6, 820	66	489	2	535	3
Pollock, fresh	49, 194	1, 030	199, 813	5, 532	146, 438	3, 051	227, 338	3, 458	333, 041	4, 215	119, 447	1, 685	74, 536	1, 009
Cusk, fresh	92, 717	3, 006	143, 192	5, 929	249, 762	6, 841	269, 490	5, 139	119, 260	1, 707	64, 158	1, 190	24, 796	491
Halibut, fresh	559	104	908	175	1, 085	195	6, 516	657	33, 644	2, 534	17, 140	960	141	22
Mackerel, fresh	------	------	------	------	------	------	------	------	------	------	40, 375	953	68, 568	1, 741
Flounders, fresh	16, 175	559	4, 011	104	21, 410	659	110, 440	1, 709	148, 635	1, 745	167, 396	3, 494	138, 655	3, 430
Swordfish, fresh	------	------	------	------	------	------	------	------	------	------	------	------	14, 974	2, 668
Wolffish, fresh	215	4	12, 370	155	490	6	8, 875	89	22, 757	215	6, 109	59	2, 886	25
Rosefish, fresh	7, 680	80	1, 425	15	32, 885	306	6, 766	71	10, 922	77	535	------	410	4
Herring, fresh	------	------	------	------	------	------	------	------	------	------	40	------	40	1
Other, fresh	9, 369	204	7, 461	169	13, 084	284	1, 586	54	3, 299	85	9, 764	151	19, 336	299
Total, fresh	444, 685	16, 755	638, 161	25, 315	772, 274	22, 059	2, 146, 544	42, 493	3, 122, 156	56, 893	2, 432, 745	51, 001	1, 162, 351	29, 007
Landed in 1935:														
Fresh	226, 953	10, 082	656, 879	18, 822	1, 155, 898	29, 352	3, 895, 319	76, 213	2, 074, 217	34, 838	1, 026, 877	25, 056	1, 235, 926	32, 144

Species	August		September		October		November		December		Total, 1936		1935	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Cod, fresh:														
Large	108,001	$4,794	113,511	$6,151	59,819	$2,841	30,834	$1,319	41,935	$1,169	2,149,330	$60,884	3,171,397	$80,335
Market	14,314	320	32,360	755	34,796	971	25,466	774	32,024	851	1,130,639	23,359	775,335	14,872
Scrod	260	2	205	2	275	6	1,770	27	585	7	4,585	56	41,176	705
Cod, salted, large	5,180	168									5,180	168		
Haddock, fresh:														
Large	99,941	4,117	101,094	4,482	66,643	3,542	98,143	6,022	104,074	5,901	3,636,769	98,100	3,864,640	94,414
Scrod	3,405	63	5,690	90	2,830	54	5,873	130	2,844	54	503,159	9,369	552,643	9,636
Hake, fresh:														
Large	378,515	6,115	285,530	5,897	213,675	5,410	81,618	2,967	169,573	4,833	2,314,592	53,181	2,245,357	43,891
Small	27,360	284	9,490	90	4,607	47	5,550	183	11,135	227	74,469	1,023	16,610	190
Hake, salted, large	2,030	20									2,030	20		
Pollock, fresh	129,660	2,213	808,450	12,034	710,136	10,664	221,274	3,132	80,695	1,239	3,100,022	49,262	848,256	9,086
Cusk, fresh	40,478	856	32,158	761	69,403	1,936	58,447	1,889	144,669	3,666	1,308,530	33,414	1,467,293	31,553
Cusk, salted	4,500	72									4,500	72		
Halibut, fresh	28,844	3,124	1,004	106	3,307	363	795	100	1,160	218	95,103	8,558	84,677	9,881
Mackerel, fresh	67,532	2,111	20,846	1,012	56,334	3,993	13,287	1,006			263,942	10,816	46,738	967
Mackerel, salted													3,450	34
Flounders, fresh	97,072	3,265	15,684	605	13,937	545	20,461	671	50,940	1,492	804,816	18,278	516,261	11,534
Swordfish, fresh	19,189	2,891	11,541	2,891							45,704	8,450	119,330	19,870
Wolffish, fresh	190	1	1,362	21	201	3	1,635	32	40		57,130	610	53,116	536
Rosefish, fresh	835	8			2,761	35	5,065	68	9,363	111	78,647	775	70,365	592
Herring, fresh	39,160	356					34,100	217			73,340	574	88,135	472
Other, fresh	235,801	3,114	75,880	970	46,365	640	26,874	360	27,541	450	476,360	6,780	517,143	8,351
Total, fresh	1,290,557	33,634	1,514,805	35,867	1,285,089	31,050	631,192	18,897	676,578	20,518	16,117,137	383,489	14,478,472	336,885
Total, salted	11,710	260									11,710	260	3,450	34
Grand total	1,302,267	33,894	1,514,805	35,867	1,285,089	31,050	631,192	18,897	676,578	20,518	16,128,847	383,749	14,481,922	336,919
Landed in 1935:														
Fresh	1,704,785	39,692	865,599	23,814	861,777	21,373	499,544	16,083	274,698	9,416			14,478,472	336,885
Salted	3,450	34											3,450	34
Total	1,708,235	39,726	865,599	23,814	861,777	21,373	499,544	16,083	274,698	9,416			14,481,922	336,919

Landings by fishing vessels at the three principal New England ports, 1936—Continued

SUMMARY: BY PORTS

Species	Boston		Gloucester		Portland		Total, 1936		1935	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Cod, fresh:										
Large	29, 516, 328	$911, 858	4, 870, 209	$137, 250	2, 149, 330	$60, 884	36, 535, 867	$1, 109, 992	42, 469, 269	$1, 119, 703
Market	35, 923, 029	955, 794	1, 683, 419	38, 682	1, 130, 639	23, 359	38, 737, 087	1, 017, 835	42, 409, 690	890, 063
Scrod	4, 415, 985	90, 523	245, 052	5, 306	4, 585	56	4, 665, 622	95, 885	805, 496	17, 463
Cod, salted:										
Large	1, 020	33	907, 151	30, 498	5, 180	168	913, 351	30, 699	1, 246, 989	41, 665
Market	135	3	443, 757	12, 710			443, 892	12, 713	976, 184	24, 403
Scrod			84, 598	1, 693			84, 598	1, 693	184, 102	2, 655
Haddock, fresh:										
Large	97, 592, 853	3, 306, 586	3, 128, 911	89, 363	3, 636, 769	98, 100	104, 358, 533	3, 494, 049	107, 673, 518	2, 845, 649
Scrod	38, 171, 456	937, 613	845, 602	19, 642	503, 159	9, 369	39, 520, 217	966, 624	49, 322, 213	1, 031, 894
Haddock, salted:										
Large			2, 510	50			2, 510	50	6, 088	92
Scrod									60	4
Hake, fresh:										
Large	7, 997, 861	229, 838	701, 062	15, 425	2, 314, 592	53, 181	11, 013, 515	298, 444	9, 865, 004	227, 416
Small	794, 610	24, 157	49, 415	916	74, 469	1, 023	918, 494	26, 096	719, 511	17, 682
Hake, salted:										
Large	75	1	2, 720	48	2, 030	20	4, 825	69	2, 080	46
Small									855	21
Pollock, fresh	14, 159, 809	335, 768	17, 145, 965	280, 339	3, 100, 022	49, 262	34, 405, 796	665, 369	27, 884, 162	532, 616
Pollock, salted			860	10			860	10	805	17
Cusk, fresh	5, 800, 667	132, 083	151, 341	2, 824	1, 308, 530	33, 414	7, 260, 538	168, 321	5, 523, 660	109, 519
Cusk, salted			5, 000	88	4, 500	72	9, 500	160	600	9
Halibut, fresh	2, 059, 883	218, 067	26, 751	2, 116	95, 103	8, 558	2, 181, 737	228, 741	2, 341, 070	229, 479
Halibut, salted			15, 895	892			15, 895	892	4, 290	348
Mackerel, fresh	21, 012, 706	595, 073	7, 103, 273	174, 353	263, 942	10, 816	28, 379, 921	780, 242	40, 610, 473	718, 164
Mackerel, salted	865	24	289, 622	9, 381			290, 487	9, 405	237, 462	6, 404
Flounders, fresh	13, 880, 564	554, 429	837, 065	29, 657	804, 816	18, 278	15, 522, 445	602, 364	14, 401, 332	459, 586
Swordfish, fresh	1, 195, 520	251, 655	1, 486	439	45, 704	8, 450	1, 242, 710	260, 544	2, 143, 529	379, 279
Wolffish, fresh	1, 920, 081	46, 755	68, 405	1, 385	57, 130	610	2, 045, 616	48, 750	2, 286, 789	52, 179
Rosefish, fresh	49, 419, 014	720, 231	17, 093, 898	242, 636	78, 647	775	66, 591, 559	963, 642	17, 110, 497	183, 704
Herring, fresh	400	6	1, 750	16	73, 340	574	75, 490	596	92, 135	497
Herring, frozen			276, 690	5, 534			276, 690	5, 534		

Herring, salted			321,804	9,678			321,804	9,678	1,682,058	52,708
Other, fresh	15,361,903	277,618	3,109,323	60,750	476,360	6,780	[1] 18,947,586	[1] 345,148	3,118,472	61,387
Total, fresh	339,222,669	9,588,054	57,062,927	1,101,099	16,117,137	383,489	412,402,733	11,072,642	368,776,820	8,876,280
Total, frozen			276,690	5,534			276,690	5,534		
Total, salted	2,095	61	2,073,917	65,048	11,710	260	2,087,722	65,369	4,341,573	128,372
Grand total	339,224,764	9,588,115	59,413,534	1,171,681	16,128,847	383,749	414,767,145	11,143,545	373,118,393	9,004,652
Landed in 1935:										
Fresh	307,366,862	7,732,607	46,931,486	806,788	14,478,472	336,885			368,776,820	8,876,280
Salted	5,100	135	4,333,023	128,203	3,450	34			4,341,573	128,372
Total	307.371,962	7,732,742	51,264,509	934,991	14,481,922	336,919			373,118,393	9,004,652

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[1] The items under "Other, fresh" include alewives, 278,930 pounds, value $2,574; bluefish, 500 pounds, value $30; butterfish, 209,914 pounds, value $15,129; cunner (perch), 1,250 pounds, value $36; eels, 400 pounds, value $15; herring smelt, 41,895 pounds, value $1,293; salmon, 308 pounds, value $45; scup, 44,200 pounds, value $587; sea bass, 206 pounds, value $21; shad, 66,444 pounds, value $2,028; sharks, 58,424 pounds, value $1,652; skates, 30,280 pounds, value $609; squeteagues or "sea trout," 30 pounds, value $3; sturgeon, 2,414 pounds, value $217; tuna or "horse mackerel," 23,537 pounds, value $1,168; whiting, 17,666,933 pounds, value $297,435; mixed fish, 39,875 pounds, value $696; lobsters, 3 pounds, value $1; shrimp, 1,430 pounds, value $119; squid, 5,655 pounds, value $161; livers, 342,097 pounds, value $14,321; sounds, 20 pounds, value $1; spawn, 132,639 pounds, value $7,005; and tongues, 202 pounds, value $2.

BIOLOGICAL ASPECT

In 1936 the fishing fleet landing fares at Boston and Gloucester, Mass., and Portland, Maine, and operating on the fishing banks of the North Atlantic, numbered 392 steam, motor, and sail vessels of 5 net tons capacity or greater as measured by the United States Customs Service. These vessels were absent from port 55,309 days. The catch of edible fish landed at the three ports amounted to 416,384,118 pounds when the salted fish had been converted to the basis of fresh gutted or round fish as usually landed. This, however, does not represent the entire catch of edible fish of these vessels, for landings were also made at ports in New England other than these three, at New York City, and at more southern ports in connection with the southern winter trawl and mackerel fisheries.

Otter trawls on all sizes of vessels accounted for 309,551,194 pounds, or 74 percent of the total landings. Line trawls were next in importance, accounting for 49,714,305 pounds, or 12 percent of the total landings.

The catch taken off New England and landed at the three ports amounted to 264,212,798 pounds, or 64 percent of the total; that off Nova Scotia 146,939,445 pounds, or 35 percent; off the east coast of Newfoundland 4,086,552 pounds, or 1 percent; and that off the Middle Atlantic States 1,145,323 pounds, or less than one-half of 1 percent.

Landings by fishing vessels at the three principal New England ports, 1936

BY GEAR AND FISHING AREAS

Gear and fishing areas	Vessels fishing	Trips	Days absent	Cod			Haddock		Hake	
				Large	Market	Scrod	Large	Scrod	Large	Small
Line trawls:	*Number*	*Number*	*Number*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
East Coast of Newfoundland, unclassified	1	1	27	16,213	5,217	--------	--------	--------	--------	--------
Off Newfoundland	3	4	166	491,154	734,295	150,988	5,171	--------	1,482	--------
Gulf of St. Lawrence, unclassified	5	12	339	974,199	114,384	25,904	--------	--------	8,000	--------
St. Pierre Bank (St. Peters)	2	3	65	13,342	10,270	--------	6,160	--------	9,357	--------
Newfoundland Banks, unclassified	1	2	42	54,415	8,070	--------	--------	--------	600	--------
Northeast Cape Breton	1	2	31	106,500	87,300	--------	5,000	--------	52,250	--------
Banquereau	9	17	317	146,086	34,951	333	20,115	22,885	49,713	--------
Canso	2	2	18	15,700	12,350	--------	35.000	3,100	16,800	--------
Middle Ground	1	1	7	5,700	7,750	--------	3,650	300	3.600	--------
Northeast Sable Island Bank	5	5	52	98.175	43,410	300	29,095	23,800	3,755	--------
Southeast Sable Island Bank	3	3	40	7,610	4,600	--------	30,500	1,200	39,570	--------
Horseshoe Ground	3	4	36	44,790	54,300	--------	37,760	1,200	100,925	--------
Southwest Sable Island Bank	2	3	23	41,082	26,508	--------	82,034	9,090	4,810	--------
East Nova Scotia	3	3	32	30,140	27,940	--------	17,100	--------	23,920	--------
Emerald Bank	8	13	116	225,653	122.127	2,500	418,436	45,620	73,730	--------
Central Nova Scotia	3	3	29	76,180	50,320	3,400	3,990	200	44,980	--------
La Have Bank (including Sambro Bank)	23	62	561	839,673	763,193	6,400	561,310	56,090	693,475	--------
Southern Nova Scotia	26	73	735	696,267	721,555	8.170	1,261,562	117,645	505,900	--------
Browns Bank	28	211	2,007	2,562,508	2,189,149	16,028	4,283,808	407,989	1,128,459	--------
Western Nova Scotia	20	60	551	275,215	323,629	11,399	1,096,974	160,749	647,213	--------
Southern Bay of Fundy	4	4	28	7,995	7,380	--------	42.320	3,990	27,860	650
Nova Scotia, unclassified	6	9	110	152,880	100,515	2,500	98,760	4,400	104,520	--------
Eastern Maine	1	2	12	1,860	385	15	1,720	--------	53,635	--------
Central Maine	23	165	832	159,953	61,930	1,462	148,066	11,032	2,062,698	36,620
Western Maine	25	164	293	48.053	16.541	800	67.582	6,043	205,367	48,000
Eastern Massachusetts	44	693	1,469	548,075	404,721	53,280	310,295	6,150	35,905	222,455
Eastern Massachusetts (occasional)	--------	--------	--------	100	100	--------	900	--------	--------	--------
Inner Grounds	53	252	975	473,226	235,483	2,828	666,347	34,790	1,244,621	69,465
Northern Gulf of Maine, unclassified	1	1	8	73,000	10,275	--------	26,200	--------	--------	--------
Western Side South Channel	29	110	602	412,371	577,465	5,455	1,602,660	40,053	150,772	13,250
Eastern Side South Channel	15	23	128	99,533	59,314	1,490	296,435	1,607	148,590	135
Northern Edge of Georges	13	17	100	348,082	194,730	--------	240,785	32,050	21,570	--------
Northeast Peak of Georges	7	13	122	336,253	145,917	1,000	114,980	9,160	22,150	--------
Central Georges	5	6	43	258,850	26,650	--------	51,725	--------	36,350	--------
Southeast Georges	10	13	97	293,117	45,782	--------	137,758	9,750	7,195	--------
Southwest Georges	3	7	57	262,715	35,695	--------	83,233	1,000	5,000	--------

Landings by fishing vessels at the three principal New England ports, 1936—Continued

BY GEAR AND FISHING AREAS—Continued

Gear and fishing areas	Vessels fishing	Trips	Days absent	Cod			Haddock		Hake	
				Large	Market	Scrod	Large	Scrod	Large	Small
	Number	*Number*	*Number*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
Line trawls—Continued.										
Lightship Grounds	1	1	4	1,415	1,200	2,000	18,100			
Nantucket Shoals	4	4	30	28,865	39,485		34,250	5,235	16,490	7,170
Southern Gulf of Maine, unclassified	8	9	97	157,403	49,200		82,510	3,850	27,225	
Total	[1] 104	1,977	10,201	10,384,348	7,354,086	296,252	11,922,291	1,018,978	7,578,487	397,745
Hand lines:										
Central Maine (occasional)				10					525	
Western Maine (occasional)				55						
Western Side South Channel	2	3	14	5,840	8,110		80			
Southeast Georges	1	1	6	18,660	3,450					
Nantucket Shoals	1	1	8	4,545	1,760					
Total	[1] 2	5	28	29,110	13,320		80		525	
Harpoons:										
Northeast Cape Breton	20	20	351							
Banquereau	1	1	2							
Canso	2	2	50							
Northeast Sable Island Bank	4	4	61							
Horseshoe Ground	1	1	18							
Eastern Nova Scotia	2	2	10							
Central Nova Scotia	1	1	8							
Browns Bank	41	80	1,405							
Nova Scotia, unclassified	11	11	269							
Central Maine	1	1	36							
Western Maine	2	10	13							
Northern Gulf of Maine, unclassified	1	1	22							
Western Side South Channel	2	2	8							
Eastern Side South Channel	1	1	14							
Northern Edge of Georges	1	1	5							
Northeast Peak of Georges	10	10	66							
Central Georges	1	1	4							
Southeast Georges	9	10	97							
Southwest Georges	6	6	27							
Lightship Grounds	6	6	27							
Nantucket Shoals	5	5	36							

Southern New England, Offshore Grounds	9	9	113							
Southern Gulf of Maine, unclassified	28	34	536							
South	7	7	57							
Total	[1] 46	226	3, 235							
Otter trawls, large:										
Banquereau	41	130	1, 323	1, 356, 839	7, 000, 415	780, 224	2, 930, 732	2, 464, 251	30, 608	
Canso	2	2	18	2, 300	1, 750		200, 000	9, 500	8, 400	
Middle Ground	21	33	246	385, 277	491, 944	27, 740	1, 229, 086	148, 343	29, 460	5, 750
Northeast Sable Island Bank	27	67	562	566. 376	799, 043	102, 290	2, 988, 879	644, 870	38, 686	
Southeast Sable Island Bank	12	14	107	218, 916	384, 254	2, 590	313, 690	51, 625	13, 860	
Horseshoe Ground	54	236	2, 044	3, 139, 147	2, 276, 592	103, 310	11, 993, 950	1, 290, 860	470. 062	1, 020
Southwest Sable Island Bank	41	97	771	2, 289, 273	2, 038, 700	30, 013	3, 688, 836	565, 356	64, 470	
Eastern Nova Scotia	3	4	35	30, 140	45, 060	5, 240	280, 860	60, 080	5, 975	
Emerald Bank	56	195	1, 483	2, 577, 046	2, 379, 619	47, 997	11, 335, 106	1, 444, 939	227, 724	680
Central Nova Scotia	3	3	11	11, 755	15, 990	9, 400	36, 690	16, 896	900	
La Have Bank (including Sambro Bank)	24	37	228	147, 075	279, 112	6, 875	3, 222, 833	315, 095	52, 842	
Southern Nova Scotia	24	81	552	347, 588	162, 630	16, 540	309, 435	47, 300	52, 045	
Browns Bank	45	157	933	810, 758	936, 890	110, 751	4, 203, 770	1, 342, 741	72, 088	
Western Nova Scotia	1	1	3	75	120	150	6, 510	4, 500	480	
Nova Scotia, unclassified	24	35	358	397, 615	523, 925	82, 335	1, 066, 330	297, 908	32, 365	80
Central Maine	1	1	11	33, 100	105, 500		23, 800	34, 000		
Eastern Massachusetts	3	3	9	595	175		11, 500	1, 265		
Inner Grounds	7	19	119	56, 015	109, 353	4, 400	292, 652	83, 000	4, 870	
Western Side South Channel	32	181	1, 030	209, 933	161, 057	9, 940	1. 087, 078	284, 952	64, 135	
Eastern Side South Channel	34	103	545	278, 945	356, 126	22, 598	2, 531, 401	1, 184, 015	140, 853	
Northern Edge of Georges	48	279	1, 723	1, 360, 238	3, 481, 205	694, 960	6, 779, 676	4, 976, 155	190, 672	1, 168
Northeast Peak of Georges	57	417	3, 109	4, 072, 383	5, 174, 145	1, 454, 998	14, 560, 031	10. 349, 077	232, 497	932
Central Georges	40	149	920	456, 902	823, 676	86, 152	4, 418, 053	3, 762, 871	26, 054	
Southeast Georges	42	91	525	817, 721	520, 446	162, 457	2, 307, 120	2, 043, 742	53, 822	
Southwest Georges	25	38	270	87, 371	53, 750	1, 980	1, 699, 769	1, 109, 852	9, 119	
Lightship Grounds	1	1	3	1, 520	1, 200	400	6, 520	3, 808	120	
Nantucket Shoals	1	1	5	7, 900	19, 625		26, 200	10, 925	220	
Southern Gulf of Maine, unclassified	25	39	370	195, 295	289, 010	181, 870	977, 265	704, 839	27, 685	
Total	[1] 61	2, 414	17, 313	19, 858, 098	28, 431, 312	3, 945, 210	78, 527, 772	33, 252, 765	1, 850, 012	9, 630
Otter trawls, medium:										
Banquereau	2	3	35	38, 140	165, 400	35, 900	97, 550	67, 290	520	
Canso	1	1	4	750	950		6, 750	2, 475	600	
Northeast Sable Island Bank	2	2	17	18, 170	8, 270		14, 740	4, 180		
Horseshoe Ground	4	7	57	36, 230	38, 620		505, 080	73, 520	10, 260	
Southwest Sable Island Bank	3	4	22	93, 675	48, 870	600	93, 960	13, 865	2, 200	
Emerald Bank	7	13	100	55, 020	62, 820	3, 160	685, 055	92, 415	12, 135	
Central Nova Scotia	1	1	8	9, 900	15, 896	5, 490	22, 860	19, 170	3, 420	
La Have Bank (including Sambro Bank)	2	2	13	1, 600	3, 650		56, 000	23, 750	1, 000	
Southern Nova Scotia	15	38	292	80, 490	44, 315	340	48, 105	7, 485	62, 025	
Browns Bank	12	46	342	253, 480	269, 655	42, 075	1, 604, 630	425, 190	19, 716	

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[1] Exclusive of duplication.

Landings by fishing vessels at the three principal New England ports, 1936—Continued

BY GEAR AND FISHING AREAS—Continued

Gear and fishing areas	Vessels fishing	Trips	Days absent	Cod			Haddock		Hake	
				Large	Market	Scrod	Large	Scrod	Large	Small
	Number	*Number*	*Number*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
Otter trawls, medium—Continued.										
Western Nova Scotia	5	5	31	14,110	14,196	2,110	38,650	17,100	12,510	----
Nova Scotia, unclassified	3	3	35	24,960	14,160	1,750	28,350	4,550	4,675	----
Central Maine	10	22	127	4,360	12,490	200	42,675	5,220	17,225	49,920
Western Maine	19	52	183	16,230	9,930	1,400	29,115	1,610	9,900	51,905
Eastern Massachusetts	51	461	1,456	115,954	123,483	16,130	113,304	12,672	37,440	85,185
Inner Grounds	33	80	275	32,535	29,216	3,680	59,730	22,159	22,085	33,465
Western Side South Channel	65	458	2,713	398,197	388,139	16,253	1,818,714	498,429	213,314	19,720
Eastern Side South Channel	33	78	494	177,583	158,715	3,985	1,339,259	519,825	40.209	470
Northern Edge of Georges	17	68	420	344,920	548,033	126,490	1,243,789	727,770	26,911	----
Northeast Peak of Georges	16	49	315	310,400	434,390	149,640	1,282,815	913,980	21,684	----
Central Georges	24	119	858	630,413	421,190	56,775	2,445,463	1,221,749	9,295	----
Southeast Georges	17	31	182	268,587	98,455	20,525	438,562	221,270	10,785	----
Southwest Georges	14	17	113	41,277	18,485	450	400,720	158,990	3,860	----
Lightship Grounds	4	4	21	1,395	900	----	18,800	6,310	1,400	----
Nantucket Shoals	5	5	22	4,570	22,400	----	32,740	7,540	----	----
Southern New England, Offshore Grounds	1	1	3	----	335	----	----	----	135	----
Southern Massachusetts	2	2	11	200	400	----	100	----	75	500
Southern Gulf of Maine, unclassified	21	57	397	61,350	53,050	11,425	220,758	120,505	21,350	1,745
Total	[1] 99	1,629	8,546	3,034,496	3,006,413	498,378	12,688,324	5,189,019	564,729	242.910
Otter trawls, small:										
Southeast Sable Island Bank	1	3	28	9,555	1,255	----	3,745	4,280	----	1,090
Southern Nova Scotia	1	2	14	4,270	820	----	900	----	----	710
Eastern Maine	3	3	13	1,155	175	----	12,635	535	4,700	200
Central Maine	21	109	514	46,505	14,666	295	253,532	8,481	92,820	37,865
Western Maine	35	198	512	32,870	16,259	1,600	93,636	2,715	56,385	44,797
Eastern Massachusetts	77	1,412	4,208	293,155	251,760	32,820	266,895	16,249	45,992	128,485
Inner Grounds	30	68	225	29,300	16,760	4,845	39,680	740	2,410	15,440
Western Side South Channel	51	221	808	109,435	74.257	29,180	203,885	25,100	21,378	23,150
Eastern Side South Channel	1	1	4	250	75	----	----	----	625	----
Lightship Grounds	1	2	6	----	----	----	----	----	----	----
Nantucket Shoals	5	8	26	1,200	3,000	135	525	----	680	----
Southern Massachusetts	1	1	3	----	100	----	----	----	----	----
Total	[1] 97	2,028	6,361	527,695	379.127	68,875	875,433	58,100	224,990	251,737

Sink gill nets:										
Central Maine	4	5	7	3, 780	1, 110		575		12, 655	420
Western Maine	19	1, 274	1, 283	1, 367, 616	136, 020	695	119, 587	210	400, 142	2, 769
Eastern Massachusetts	37	3, 623	3, 623	3, 064, 196	275, 383	23, 715	229, 637	1, 145	389, 872	13, 265
Inner Grounds	17	253	253	1, 805	515		5		20	18
Nantucket Shoals	1	1	1							
Total	[1] 44	5, 156	5, 167	4, 437, 397	413, 028	24, 410	349, 804	1, 355	802, 689	16, 472
Drift gill nets:										
Bay of Islands	1	1	23							
Off Newfoundland	1	1	24							
Eastern Massachusetts	23	128	223		430				1, 250	
Western Side South Channel	9	51	51							
Total	[1] 26	181	321		[2] 430				[2] 1, 250	
Purse seines:										
Northeast Sable Island Bank	1	1	11							
Browns Bank	1	1	5							
Central Maine	21	45	164		200					
Western Maine	14	56	94	40	70					
Eastern Massachusetts	73	649	1, 702	50						
Inner Grounds	15	17	47							
Western Side South Channel	47	127	418		250					
Eastern Side South Channel	16	18	52							
Lightship Grounds	54	189	771							
Nantucket Shoals	28	36	130							
Southern New England, offshore grounds	49	147	540							
Southern Massachusetts	8	9	26							
Rhode Island	1	1	3							
Southern Gulf of Maine, unclassified	3	3	11							
South	24	30	163							
Total	[1] 83	1, 329	4, 137	[2] 90	[2] 520					
Grand total	[1] 392	14, 945	55, 309	38, 271, 234	39, 598, 236	4, 833, 125	104, 363, 704	39, 520, 217	11, 022, 682	918, 494

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[1] Exclusive of duplication.

[2] Incidental catch.

NOTE.—The three principal New England ports are Boston and Gloucester, Mass., and Portland, Maine. Otter trawls are classified according to the size of the vessel. The weight of salted fish landed has been converted to the equivalent of fresh fish as landed. Only landings by vessels having a capacity of 5 net tons or greater are used in this tabulation. "Occasional" after the name of a bank or ground indicates that the vessel or vessels contributing to the catch as shown fished chiefly with another type of gear. In such cases the number of vessels fishing, number of trips, and number of days absent, are shown under the principal type of gear used. A trip is shown for each area in which a vessel operated on each voyage. Consequently several trips may be shown for a single voyage.

Landings by fishing vessels at the three principal New England ports, 1936—Continued

BY GEAR AND FISHING AREAS—Continued

Gear and fishing areas	Pollock	Cusk	Halibut	Mackerel	Flounders	Swordfish	Wolffish	Rosefish	Herring	Other	Total
Line trawls:	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
East Coast of Newfoundland, unclassified			48,667							981	71,078
Off Newfoundland									112,050		1,495,140
Gulf of St. Lawrence, unclassified	175	6,170	304,944							7,409	1,441,185
St. Pierre Bank (St. Peters)		8,550	60,939								108,618
Newfoundland Banks, unclassified			125,250							1,470	189,805
Northeast Cape Breton	200	200	80								251,530
Banquereau	87	15,565	531,702							1,463	822,900
Canso	1,550	16,100	1,371								101,971
Middle Ground	200	2,250	50								23,500
Northeast Sable Island Bank	1,200	8,825	4,610				125				213,295
Southeast Sable Island Bank	300	38,440	20,327							686	143,233
Horseshoe Ground	5,120	33,285	2,628		2,460		7,175				289,643
Southwest Sable Island Bank	6,674	1,410	2,788				732				175,128
Eastern Nova Scotia	370	20,580	533				300				120,883
Emerald Bank	19,306	30,760	10,572		9,840		17,668				976,212
Central Nova Scotia	300	17,210	1,255				100				197,935
La Have Bank (including Sambro Bank)	93,238	654,620	56,336			290	41,355			840	3,766,820
Southern Nova Scotia	109,765	807,090	18,121		2,180		81,295				4,329,550
Browns Bank	193,755	1,608,583	288,153	1,500	419	2,326	100,114			6,150	12,788,941
Western Nova Scotia	58,273	346,558	18,278				15,866			20	2,954,174
Southern Bay of Fundy	4,635	8,820	741				1,250			3,000	108,641
Nova Scotia, unclassified	10,480	94,710	4,505				3,025				576,295
Eastern Maine		2,660									60,275
Central Maine	45,560	643,005	1,394		285		569	600		24,759	3,197,933
Western Maine	14,116	114,953	1,855		415		635	475		10,231	535,066
Eastern Massachusetts	252,810	88,245	2,733	24,590	24,710		78,500	4,800		35,645	2,092,914
Eastern Massachusetts (occasional)	400	100									1,600
Inner Grounds	73,857	1,914,954	7,510		173		1,845	160		37,342	4,762,601
Northern Gulf of Maine, unclassified	600		142								110,217
Western Side South Channel	136,845	74,207	12,428		5,705		13,255	461,718		17,410	3,523,594
Eastern Side South Channel	8,750	149,093	3,236		275		500	65,950		845	835,753
Northern Edge of Georges	22,455	36,480	4,020				1,630				901,802
Northeast Peak of Georges	17,133	21,290	24,452				785			330	693,450
Central Georges	1,650	16,550	347								392,122
Southeast Georges	6,123	21,915	766				150				522,556
Southwest Georges	2,190	2,000	119								391,952
Lightship Grounds	900		56								23,671
Nantucket Shoals	4,115	10,535	302				465				146,912

Southern Gulf of Maine, unclassified	3,650	49,150	1,247				1,175				375,410
Total	1,096,782	6,864,863	1,562,457	[2] 26,090	46,462	[2] 2,616	368,514	533,703	[2] 112,050	148,581	49,714,305
Hand lines:											
Gulf of St. Lawrence, unclassified (occasional)				108,000							108,000
Central Maine (occasional)	10	25									570
Western Maine (occasional)											55
Eastern Massachusetts (occasional)										5,800	5,800
Western Side South Channel	350										14,380
Southeast Georges	1,000		63								23,173
Nantucket Shoals	400										6,705
Total	1,760	25	63	108,000						5,800	158,683
Harpoons:											
Northeast Cape Breton						137,439					137,439
Banquereau						704					704
Banquereau (occasional)						615					615
Canso						7,095				83	7,178
Northeast Sable Island Bank						35,212					35,212
Horseshoe Ground						16,985					16,985
Horseshoe Ground (occasional)						2,609					2,609
Eastern Nova Scotia						6,298					6,298
Central Nova Scotia						2,876					2,876
Browns Bank						629,394					629,394
Browns Bank (occasional)						9,338					9,338
Nova Scotia, unclassified						91,238					91,238
Central Maine						2,283				58	2,341
Western Maine						1,073				5,067	6,140
Northern Gulf of Maine, unclassified						5,053					5,053
Western Side South Channel						2,020					2,020
Western Side South Channel (occasional)						480					480
Eastern Side South Channel						5,877					5,877
Northern Edge of Georges						2,689					2,689
Northeast Peak of Georges						25,416					25,416
Central Georges						2,688					2,688
Southeast Georges						34,070					34,070
Southwest Georges						8,883					8,883
Lightship Grounds						6,847					6,847
Lightship Grounds (occasional)						1,346					1,346
Nantucket Shoals						9,206					9,206
Southern New England, Offshore Grounds						29,902					29,902
Southern Gulf of Maine, unclassified						148,854					148,854
South						13,538					13,538
Total						1,240,028				5,208	1,245,236

[2] Incidental catch.

Landings by fishing vessels at the three principal New England ports, 1936—Continued

BY GEAR AND FISHING AREAS—Continued

Gear and fishing areas	Pollock	Cusk	Halibut	Mackerel	Flounders	Swordfish	Wolffish	Rosefish	Herring	Other	Total
Otter trawls, large:	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
Banquereau	227, 862	5, 670	49, 322		440, 105		17, 301	220, 617		240	15, 524, 186
Canso	1, 350	100	2, 570		40, 150		1, 550				267, 670
Middle Ground	84, 919	2, 224	15, 285		151, 133		18, 471			3, 020	2, 592, 652
Northeast Sable Island Bank	286, 430	2, 973	24, 450	626	246, 798		10, 446	16, 050		1, 747	5, 729, 664
Southeast Sable Island Bank	66, 561	1, 353	14, 230		124, 684		30, 293	12, 054		560	1, 234, 670
Horseshoe Ground	1, 226, 421	35, 970	106, 790	466	2, 593, 049		226, 759	255, 824		11, 540	23, 731, 760
Southwest Sable Island Bank	728, 246	3, 681	92, 050		203, 460		224, 296	33, 586		1, 241	9, 963, 208
Eastern Nova Scotia	33, 860	1, 280	3, 173		29, 360		10, 240				507, 268
Emerald Bank	1, 105, 287	26, 716	100, 092		532, 866		283, 177	46, 840		9, 222	20, 117, 311
Central Nova Scotia	2, 230		386		1, 438		987	1, 610			98, 282
La Have Bank (including Sambro Bank)	113, 295	5, 726	10, 273		50, 081		13, 967	138, 635		179	4, 355, 958
Southern Nova Scotia	67, 435	550	6, 659		390, 308		99, 983	7, 440, 341		192	8, 941, 006
Browns Bank	655, 673	20, 078	19, 900		314, 975		104, 551	3, 300, 669		9, 811	11, 902, 655
Western Nova Scotia	180	240	40		258					6	12, 559
Nova Scotia, unclassified	163, 040	3, 366	10, 441		153, 560		21, 541	289, 630		37	3, 042, 173
Central Maine	500		225								197, 125
Eastern Massachusetts	107		10		58		65	98, 120			111, 895
Inner Grounds	57, 920	1, 080	6, 506		5, 915		125	1, 270, 449		50	1, 892, 335
Western Side South Channel	239, 944	39, 708	6, 532		284, 426		17, 173	14, 471, 200		31, 822	16, 907, 900
Eastern Side South Channel	182, 287	5, 738	7, 669	50	311, 581		11, 175	1, 839, 130		277, 490	7, 149, 058
Northern Edge of Georges	1, 263, 674	38, 461	26, 748	16, 734	690, 103		53, 995	230, 568		71, 570	19, 875, 927
Northeast Peak of Georges	2, 837, 134	91, 491	50, 614	17, 515	471, 899		122, 172	208, 418		53, 418	39, 696, 724
Central Georges	302, 978	1, 914	17, 880	3, 398	799, 494		29, 134	13, 750		31, 638	10, 773, 894
Southeast Georges	160, 708	2, 587	8, 378	300	183, 275		13, 432	167, 855		4, 816	6, 446, 659
Southwest Georges	87, 905	13, 480	1, 719		54, 958		4, 475	37, 402		26, 472	3, 188, 252
Lightship Grounds	240		35		2, 330		20				16, 193
Nantucket Shoals	7, 650				50		950				73, 520
Southern Gulf of Maine, unclassified	248, 655	5, 369	3, 019	11, 744	77, 860		9, 095	413, 647		10, 460	3, 155, 813
Total	10, 152, 491	309, 755	586, 996	[2] 50, 833	8, 154, 174		1, 325, 373	30, 506, 395		545, 531	217, 506, 347
Otter trawls, medium:											
Banquereau	1, 280		2, 380		19, 420		360			350	428, 590
Canso	150				600			33, 017			45, 292
Northeast Sable Island Bank	120	5, 880	1, 315		9, 800						62, 475
Horseshoe Ground	24, 120	1, 455	5, 139		70, 567		6, 860	7, 300		560	779, 711
Southwest Sable Island Bank	16, 900	585	640		23, 355		2, 875			240	297, 765
Emerald Bank	41, 690	1, 105	3, 291		33, 075		11, 292	29, 010			1, 030, 068
Central Nova Scotia	225			180	1, 845		225	2, 025			81, 236
La Have Bank (including Sambro Bank)	1, 150	200	223		7, 125		200				94, 898

Southern Nova Scotia	10, 265	600	40		80, 512		218	2, 566, 186			2, 900, 581
Browns Bank	152, 925	2, 905	5, 415	10	49, 502		56, 263	972, 091		3, 664	3, 857, 521
Western Nova Scotia	725	7, 445	978	20	13, 637		25	225			121, 731
Nova Scotia, unclassified	3, 720	270	277		7, 230		1, 090	84, 150			175, 182
Central Maine	8, 360	2, 350	150		139, 280		1, 000	76, 890		58, 925	419, 045
Western Maine	6, 110	125			297, 065		1, 095	259, 230		176, 633	860, 348
Eastern Massachusetts	2, 050, 247	2, 179	286	165	657, 216		8, 540	1, 085, 913		2, 886, 855	7, 195, 569
Inner Grounds	27, 421	8, 158			143, 097		2, 573	1, 310, 374		106, 830	1, 801, 373
Western Side South Channel	265, 405	37, 466	5, 122		596, 930		52, 040	23, 016, 097		436, 644	27, 762, 470
Eastern Side South Channel	91, 735	273	2, 831	870	225, 724		10, 796	1, 140, 028		63, 233	3, 775, 536
Northern Edge of Georges	152, 462	1, 985	6, 162	15	259, 256		7, 932	188, 815		24, 794	3, 659, 334
Northeast Peak of Georges	147, 123	2, 050	4, 622	1, 970	89, 722		13, 729	8, 850		8, 026	3, 389, 001
Central Georges	111, 119	340	7, 092	100	707, 106		3, 627	48, 900		4, 568	5, 667, 737
Southeast Georges	19, 735	40	2, 004	60	63, 866		903	138, 550		13, 591	1, 296, 933
Southwest Georges	8, 820		100		40, 775			45, 000		400	718, 877
Lightship Grounds	13, 800		20		8, 326			9, 300		4, 690	64, 941
Nantucket Shoals	4, 850		88		39, 360		60	1, 285		1, 575	114, 468
Southern New England, Offshore Grounds	130			25	1, 370					3, 725	5, 720
Southern Massachusetts					19, 900			2, 500		500	24, 175
Southern Gulf of Maine, unclassified	18, 840	4, 100	1, 372		99, 335	66	2, 060	2, 251, 216		335	2, 867, 507
Total	3, 179, 427	79, 511	49, 547	[2] 3, 415	3, 704, 996	[2] 66	183, 763	33, 276, 952		3, 796, 138	69, 498, 084
Otter trawls, small:											
Southeast Sable Island Bank	1, 885	40			10, 285			103, 949			136, 084
Southern Nova Scotia	410	380			2, 615			71, 417			81, 522
Eastern Maine	270		107		21, 705		70				41, 552
Central Maine	2, 140	510	13, 490		470, 265		7, 325	9, 980		30, 766	988, 640
Western Maine	3, 183	43	99		527, 702		22, 734	93, 511		231, 790	1, 127, 324
Eastern Massachusetts	472, 555	3, 560	56	15	1, 761, 437		53, 305	680, 560		12, 082, 117	16, 088, 961
Inner Grounds	1, 835	220	110		177, 730		20, 500	273, 785		172, 138	755, 493
Western Side South Channel	11, 360	1, 970	150		437, 988		62, 865	1, 033, 221		1, 093, 548	3, 127, 487
Eastern Side South Channel					920			400		120	2, 390
Lightship Grounds					40, 975					50	41, 025
Nantucket Shoals	175			170	133, 640					2, 360	141, 885
Southern Massachusetts					14, 300						14, 400
Total	493, 813	6, 723	14, 012	[2] 185	3, 599, 562		166, 799	2, 266, 823		13, 612, 889	22, 546, 763
Sink gill nets:											
Central Maine	26, 616	5, 280					40			1, 790	52, 266
Western Maine	2, 851, 525	10, 624	290	356	14, 143		867	7, 356		163, 883	5, 076, 083
Eastern Massachusetts	15, 556, 166	1, 690	162	30	3, 098		260	330	1, 750	227, 400	19, 788, 099
Inner Grounds	984, 630	7									987, 000
Nantucket Shoals	1, 960										1, 960
Total	19, 420, 897	17, 601	452	[2] 386	17, 241		1, 167	7, 686	[2] 1, 750	393, 073	25, 905, 408

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[2] Incidental catch.

Landings by fishing vessels at the three principal New England ports, 1936—Continued

BY GEAR AND FISHING AREAS—Continued

Gear and fishing areas	Pollock	Cusk	Halibut	Mackerel	Flounders	Swordfish	Wolffish	Rosefish	Herring	Other	Total
Drift gill nets:	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
Bay of Islands									370, 656		370, 656
Off Newfoundland									276, 690		276, 690
Gulf of St. Lawrence, unclassified (occasional)				25, 380							25, 380
Eastern Massachusetts	23, 295			195, 837						8, 043	228, 855
Western Side South Channel				120, 940						315	121, 255
Total	[2] 23, 295			342, 157					647, 346	8, 358	1, 022, 836
Purse seines:											
Northeast Sable Island Bank				24, 500							24, 500
Browns Bank				20, 700							20, 700
Central Maine	27, 720			500, 441						1, 691	530, 052
Western Maine		110		173, 550	10				73, 340	82, 376	329, 496
Eastern Massachusetts	3, 900			10, 574, 682						270, 987	10, 849, 619
Inner Grounds				320, 135						7, 000	327, 135
Western Side South Channel	80			2, 069, 690					400	7, 095	2, 077, 515
Eastern Side South Channel				730, 535							730, 535
Lightship Grounds	7, 265			6, 286, 315						14, 980	6, 308, 560
Nantucket Shoals				1, 168, 228						40, 015	1, 208, 243
Southern New England, Offshore Grounds				4, 948, 362						7, 124	4, 955, 486
Southern Massachusetts				209, 230						700	209, 930
Rhode Island				49, 800							49, 800
Southern Gulf of Maine, unclassified				33, 100							33, 100
South				1, 131, 745						40	1, 131, 785
Total	[2] 38, 965	[2] 110		28, 241, 013	[1] 10				73, 740	432, 008	28, 786, 456
Grand total	34, 407, 430	7, 278, 588	2, 213, 527	28, 772, 079	15, 522, 445	1, 242, 710	2, 045, 616	66, 591, 559	834, 886	18, 947, 586	416. 384, 118

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[1] Exclusive of duplication.

[2] Incidental catch.

SUMMARY: By fishing areas

Fishing areas	Vessels fishing	Trips	Days absent	Cod			Haddock		Hake	
				Large	Market	Scrod	Large	Scrod	Large	Small
	Number	*Number*	*Number*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
East Coast of Newfoundland (area XVIII):										
East Coast of Newfoundland, unclassified	1	1	27	16, 213	5, 217					
Gulf of St. Lawrence, (area XIX):										
Bay of Islands	1	1	23							
Off Newfoundland	4	5	190	491, 154	734, 295	150, 988	5, 171		1, 482	
Gulf of St. Lawrence, unclassified	5	12	339	974, 199	114, 384	25, 904			8, 000	
Newfoundland Banks (area XX):										
St. Pierre Bank (St. Peters)	2	3	65	13, 342	10, 270		6, 160		9, 357	
Newfoundland Banks, unclassified	1	2	42	54, 415	8, 070				600	
Total	[1] 9	24	686	1, 549, 323	872, 236	176, 892	11, 331		19, 439	
Off Nova Scotia (area XXI):										
Northeast Cape Breton	21	22	382	106, 500	87, 300		5, 000		52, 250	
Banquereau	53	151	1, 677	1, 541, 065	7, 200, 766	816, 457	3, 048, 397	2, 554, 426	80, 841	
Canso	7	7	90	18, 750	15, 050		241, 750	15, 075	25, 800	
Middle Ground	22	34	253	390, 977	499, 694	27, 740	1, 232, 736	148, 643	33, 060	5, 750
Northeast Sable Island Bank	39	79	703	682, 721	850, 723	102, 590	3, 032, 714	672, 850	42, 441	
Southeast Sable Island Bank	16	20	175	236, 081	390, 109	2, 590	347, 935	57, 105	53, 430	1, 090
Horseshoe Ground	61	248	2, 155	3, 220, 167	2, 369, 512	103, 310	12, 536, 790	1, 365, 580	581, 247	1, 020
Southwest Sable Island Bank	46	104	816	2, 424, 030	2, 114, 078	30, 613	3, 864, 830	588, 311	71, 480	
Eastern Nova Scotia	7	9	77	60, 280	73, 000	5, 240	297, 960	60, 080	29, 895	
Emerald Bank	70	221	1, 699	2, 857, 719	2, 564, 566	53, 657	12, 438, 597	1, 582, 974	313, 589	680
Central Nova Scotia	8	8	56	97, 835	82, 206	18, 290	63, 540	36, 266	49, 300	
La Have Bank (including Sambro Bank)	49	101	802	988, 348	1, 045, 955	13, 275	3, 840, 143	394, 935	747, 317	
Southern Nova Scotia	66	194	1, 593	1, 128, 615	929, 320	25, 050	1, 620, 002	172, 430	619, 970	710
Browns Bank	125	495	4, 692	3, 626, 746	3, 395, 694	168, 854	10, 092, 208	2, 175, 920	1, 220, 263	
Western Nova Scotia	24	66	585	289, 400	337, 945	13, 659	1, 142, 134	182, 349	660, 203	
Southern Bay of Fundy	4	4	28	7, 995	7, 380		42, 320	3, 990	27, 860	650
Nova Scotia, unclassified	44	58	772	575, 455	638, 600	86, 585	1, 193, 440	306, 858	141, 560	80
Total	[1] 160	1, 821	16, 555	18, 252, 684	22, 601, 898	1, 467, 910	55, 040, 496	10, 317, 792	4, 750, 506	9, 980
Off New England (area XXII):										
Eastern Maine	4	5	25	3, 015	560	15	14, 355	535	58, 335	200
Central Maine	74	348	1, 691	247, 708	195, 896	1, 957	468, 648	58, 733	2, 185, 923	124, 825
Western Maine	104	1, 754	2, 378	1, 464, 864	178, 820	4, 495	309, 920	10, 578	671, 794	147, 471
Eastern Massachusetts	219	6, 969	12, 690	4, 022, 125	1, 056, 052	125, 945	932, 531	37, 481	510, 459	449, 390
Inner Grounds	146	689	1, 894	592, 881	391, 327	15, 753	1, 058, 464	140, 689	1, 274, 006	118, 388
Northern Gulf of Maine, unclassified	2	2	30	73, 000	10, 275		26, 200			
Western Side South Channel	209	1, 153	5, 644	1, 135, 776	1, 209, 278	60, 828	4, 712, 417	848, 534	449, 599	56, 120

[1] Exclusive of duplication.

[2] Incidental catch.

Landings by fishing vessels at the principal New England ports, 1936—Continued

SUMMARY: BY FISHING AREAS—Continued

Fishing areas	Vessels fishing	Trips	Days absent	Cod			Haddock		Hake	
				Large	Market	Scrod	Large	Scrod	Large	Small
Off New England (area XXII)—Continued.	*Number*	*Number*	*Number*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
Eastern Side South Channel	97	224	1,237	556,311	574,230	28,073	4,167,095	1,705,447	330,277	605
Northern Edge of Georges	78	365	2,248	2,053,240	4,223,968	821,450	8,264,250	5,735,975	239,153	1,168
Northeast Peak of Georges	90	489	3,612	4,719,036	5,754,452	1,605,638	15,957,826	11,272,217	276,331	932
Central Georges	70	275	1,825	1,346,165	1,271,516	142,927	6,915,241	4,984,620	71,699	
Southeast Georges	77	146	907	1,398,085	668,133	182,982	2,883,440	2,274,762	71,802	
Southwest Georges	48	68	467	391,363	107,930	2,430	2,183,722	1,269,842	17,979	
Lightship Grounds	67	203	832	4,330	3,300	2,400	43,420	10,118	1,520	
Nantucket Shoals	49	61	258	47,080	86,270	135	93,715	23,700	17,390	7,170
Southern New England, Offshore Grounds	59	157	656		335				135	
Southern Massachusetts	11	12	40	200	500		100		75	500
Rhode Island	1	1	3							
Southern Gulf of Maine, unclassified	80	142	1,411	414,048	391,260	193,295	1,280,533	829,194	76,260	1,745
Total	[1] 384	13,063	37,848	18,469,227	16,124,102	3,188,323	49,311,877	29,202,425	6,252,737	908,514
Off Middle Atlantic States (area XXIII):										
South	31	37	220							
Grand total	[1] 392	14,945	55,309	38,271,234	39,598,236	4,833,125	104,363,704	39,520,217	11,022,682	918,494

Fishing areas	Pollock	Cusk	Halibut	Mackerel	Flounders	Swordfish	Wolffish	Rosefish	Herring	Other	Total
East Coast of Newfoundland (area XVIII):											
East Coast of Newfoundland, unclassified	*Pounds*	*Pounds*	*Pounds* 48,667	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds* 981	*Pounds* 71,078
Gulf of St. Lawrence (area XIX):											
Bay of Islands									370,656		370,656
Off Newfoundland									388,740		1,771,830
Gulf of St. Lawrence, unclassified	175	6,170	304,944	133,380						7,409	1,574,565
Newfoundland Banks (area XX):											
St. Pierre Bank (St. Peters)		8,550	60,939								108,618
Newfoundland Banks, unclassified			125,250							1,470	189,805
Total	175	14,720	539,800	133,380					759,396	9,860	4,086,552
Off Nova Scotia (area XXI):											
Northeast Cape Breton	200	200	80			137,439					388,969

Banquereau	229, 229	21, 235	583, 404	----	459, 525	1, 319	17, 661	220, 617	----	2, 053	16, 776, 995
Canso	3, 050	16, 200	3, 941	----	40, 750	7, 095	1, 550	33, 017	----	83	422, 111
Middle Ground	85, 119	4, 474	15, 335	----	151, 133	----	18, 471	----	----	3, 020	2, 616, 152
Northeast Sable Island Bank	287, 750	17, 678	30, 375	25, 126	256, 598	35, 212	10, 571	16, 050	----	1, 747	6, 065, 146
Southeast Sable Island Bank	68, 746	39, 833	34, 557	----	134, 969	----	30, 293	116, 003	----	1, 246	1, 513, 987
Horseshoe Ground	1, 255, 661	70, 710	114, 557	466	2, 666, 076	19, 594	240, 794	263, 124	----	12, 100	24, 820, 708
Southwest Sable Island Bank	751, 820	5, 676	95, 478	----	226, 815	----	227, 903	33, 586	----	1, 481	10, 436, 101
Eastern Nova Scotia	34, 230	21, 860	5, 706	----	29, 360	6, 298	10, 540	----	----	----	634, 449
Emerald Bank	1, 166, 283	58, 581	113, 955	----	575, 781	----	312, 137	75, 850	----	9, 222	22, 123, 591
Central Nova Scotia	2, 755	17, 210	1, 641	180	3, 283	2, 876	1, 312	3, 635	----	----	380, 329
La Have Bank (including Sambro Bank)	207, 683	660, 546	66, 832	----	57, 206	290	55, 522	138, 635	----	1, 019	8, 217, 706
Southern Nova Scotia	187, 875	808, 620	24, 820	----	475, 615	----	181, 496	10, 077, 944	----	192	16, 252, 659
Browns Bank	1, 002, 353	1, 631, 566	313, 468	22, 210	364, 896	641, 058	260, 928	4, 272, 760	----	19, 625	29, 208, 549
Western Nova Scotia	59, 178	354, 243	19, 296	20	13, 895	----	15, 891	225	----	26	3, 088, 464
Southern Bay of Fundy	4, 635	8, 820	741	----	----	----	1, 250	----	----	3, 000	108, 641
Nova Scotia, unclassified	177, 240	98, 346	15, 223	----	160, 790	91, 238	25, 656	373, 780	----	37	3, 884, 888
Total	5, 523, 807	3, 835, 798	1, 439, 409	48, 002	5, 616, 692	942, 419	1, 411, 975	15, 625, 226	----	54, 851	146, 939, 445
Off New England (area XXII):											
Eastern Maine	270	2, 660	107	----	21, 705	----	70	----	----	----	101, 827
Central Maine	110, 906	651, 170	15, 259	500, 441	609, 830	2, 283	8, 934	87, 470	----	117, 989	5, 387, 972
Western Maine	2, 874, 934	125, 855	2, 244	173, 906	839, 335	1, 073	25, 331	360, 572	73, 340	669, 980	7, 934, 512
Eastern Massachusetts	18, 359, 480	95, 774	3, 247	10, 795, 319	2, 446, 519	----	140, 670	1, 869, 723	1, 750	15, 516, 847	56, 363, 312
Inner Grounds	1, 145, 663	1, 924, 419	14, 126	320, 135	326, 915	----	25, 043	2, 854, 768	----	323, 360	10, 525, 937
Northern Gulf of Maine, unclassified	600	----	142	----	----	5, 053	----	----	----	----	115, 270
Western Side South Channel	653, 984	153, 351	24, 232	2, 190, 630	1, 325, 049	2, 500	145, 333	38, 982, 236	400	1, 586, 834	53, 537, 101
Eastern Side South Channel	282, 772	155, 104	13, 736	731, 455	538, 500	5, 877	22, 471	3, 045, 508	----	341, 688	12, 499, 149
Northern Edge of Georges	1, 438, 591	76, 926	36, 930	16, 749	949, 359	2, 689	63, 557	419, 383	----	96, 364	24, 439, 752
Northeast Peak of Georges	3, 001, 390	114, 831	79, 688	19, 485	561, 621	25, 416	136, 686	217, 268	----	61, 774	43, 804, 591
Central Georges	415, 747	18, 804	25, 319	3, 498	1, 506, 600	2, 688	32, 761	62, 650	----	36, 206	16, 836, 441
Southeast Georges	187, 566	24, 542	11, 211	360	247, 141	34, 070	14, 485	306, 405	----	18, 407	8, 323, 391
Southwest Georges	98, 915	15, 480	1, 938	----	95, 733	8, 883	4, 475	82, 402	----	26, 872	4, 307, 964
Lightship Grounds	22, 205	----	111	6, 286, 315	51, 631	8, 193	20	9, 300	----	19, 720	6, 462, 583
Nantucket Shoals	19, 150	10, 535	390	1, 168, 398	173, 050	9, 206	1, 475	1, 285	----	43, 950	1, 702, 899
Southern New England, Offshore Grounds	130	----	----	4, 948, 387	1, 370	29, 902	----	----	----	10, 849	4, 991, 108
Southern Massachusetts	----	----	----	209, 230	34, 200	----	----	2, 500	----	1, 200	248, 505
Rhode Island	----	----	----	49, 800	----	----	----	----	----	----	49, 800
Southern Gulf of Maine, unclassified	271, 145	58, 619	5, 638	44, 844	177, 195	148, 920	12, 330	2, 664, 863	----	10, 795	6, 580, 684
Total	28, 883, 448	3, 428, 070	234, 318	27, 458, 952	9, 905, 753	286, 753	633, 641	50, 966, 333	75, 490	18, 882, 835	264, 212, 798
Off Middle Atlantic States (area XXIII):											
South	----	----	----	1, 131, 745	----	13, 538	----	----	----	40	1, 145, 323
Grand total	34, 407, 430	7, 278, 588	2, 213, 527	28, 772, 079	15, 522, 445	1, 242, 710	2, 045, 616	66, 591, 559	834, 886	18, 947, 586	416, 384, 118

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[1] Exclusive of duplication.

NOTE.—The weight of salted fish landed has been converted to the equivalent of fresh fish as landed. The roman numerals appearing in the stub of the above table refer to the numbers given these regions by the North American Council on Fishery Investigations.

Days' absence from port of fishing vessels landing fish at Boston and Gloucester, Mass., and Portland, Maine, 1936

Fishing areas	January	February	March	April	May	June	July	August	September	October	November	December	Total
East coast of Newfoundland (area XVIII):	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
East coast of Newfoundland, unclassified					27								27
Gulf of St. Lawrence (area XIX):													
Bay of Islands	23												23
Off Newfoundland			59		34		97						190
Gulf of St. Lawrence, unclassified					85	123	21	41	38	31			339
Newfoundland Banks (area XX):													
St. Pierre Bank	22	26						17					65
Newfoundland Banks, unclassified					18	24							42
Total	45	26	59		164	147	118	58	38	31			686
Off Nova Scotia (area XXI):													
Northeast Cape Breton					16	15		197	154				382
Banquereau	111	21	70	86	93	363	252	119	71	114	79	298	1, 677
Canso			18		18				50	4			90
Middle Ground	51	31		12	60	14	6		12		42	25	253
Northeast Sable Island Bank	68	13	1	22	58		73	170	36	58	162	42	703
Southeast Sable Island Bank	11	23	42	38	13		18				28	2	175
Horseshoe Ground	170	583	182	241	384	51		89	34	21	217	183	2, 155
Southwest Sable Island Bank	137	62	182	233	28			7	8	17	54	88	816
Eastern Nova Scotia	13			11	22			5	15			11	77
Emerald Bank	222	210	480	475	50		2	17	14	18	90	121	1, 699
Central Nova Scotia	6			1	6	15	8				16	4	56
La Have Bank (including Sambro Bank)	17	4	211	36	26		56	84	122	184		62	802
Southern Nova Scotia	104	27	22	35	143	31	7	95	119	199	516	295	1, 593
Browns Bank	359	367	365	453	265	144	849	615	591	250	242	192	4, 692
Western Nova Scotia	30	14	8		58	66	55	57	15	117	123	42	585
Southern Bay of Fundy									28				28
Nova Scotia, unclassified	65	24	9	42	59		9	182	151	29	62	140	772
Total	1, 364	1, 379	1, 590	1, 685	1, 299	699	1, 335	1, 637	1, 420	1, 011	1, 631	1, 505	16, 555
Off New England (area XXII):													
Eastern Maine					5	4	8	8					25
Central Maine	46	6	30	52	83	216	234	353	210	100	194	167	1, 691
Western Maine	119	130	180	228	191	295	329	273	246	221	91	75	2, 378
Eastern Massachusetts	713	426	684	796	824	1, 395	1, 576	1, 001	1, 194	1, 527	1, 533	1, 021	12, 690
Inner Grounds	170	192	202	186	193	23	64	333	42	121	104	264	1, 894
Northern Gulf of Maine, unclassified			8			22							30
Western Side South Channel	102	156	247	335	665	515	679	561	681	793	404	506	5, 644
Eastern Side South Channel	27		29	53	154	306	114	23	25	126	42	338	1, 237
Northern Edge of Georges	248	80	65	68	71	220	387	372	250	252	181	54	2, 248
Northeast Peak of Georges	67	133	279	377	100	130	392	427	781	653	218	55	3, 612

Central Georges	105	131	134	132	428	248	116	103	20	44	140	224	1,825
Southeast Georges	60	207	113	24	68	65	84	63	56		46	121	907
Southwest Georges	258	17	72	3	38	25	16	4				34	467
Lightship Grounds					130	381	194	3	96		7	21	832
Nantucket Shoals		11	5	3	6	19	17	18	130	14	8	27	258
Southern New England, Offshore Grounds					222	157	3	271			3		656
Southern Massachusetts	14						1	25					40
Rhode Island								3					3
Southern Gulf of Maine, unclassified	185	93	31		16	223	299	66	299	64	40	95	1,411
Total	2,114	1,582	2,079	2,257	3,194	4,244	4,513	3,907	4,030	3,915	3,011	3,002	37,848
Off Middle Atlantic States (area XXIII): South				99	64	57							220
Grand total	3,523	2,987	3,728	4,044	4,721	5,147	5,966	5,602	5,488	4,957	4,642	4,507	55,309

NOTE.—The roman numerals appearing in the stub of the above table refer to the numbers given these areas by the North American Council on Fishery Investigations.

MACKEREL FISHERY OF THE ATLANTIC COAST [5]

In 1936, the mackerel fleet landed 40,221,600 pounds of mackerel, a decrease of 24 percent as compared with corresponding statistics of the preceding year.

An unusual feature of this year's activity was the fishery in the Block Island region, which extended from May 6 to November 25 and yielded more poundage than the Gulf of Maine.

Of the total landings, about 3,000,000 pounds were tinkers (fish under one pound) and 37,000,000 pounds were of larger sizes. The tinkers were caught between July 1 and October 31, with 91 percent of them being taken during August and September.

Mackerel fishery of the Atlantic coast, 1936

CATCH: BY AREAS IN 5-DAY PERIODS

Date	Southern (area XXIII)		Block Island (area XXII, west of Nantucket Shoals)		Gulf of Maine (area XXII, north of Nantucket Shoals)		Total
	Seiners	Netters	Seiners	Netters	Seiners	Netters	
	Pounds	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
Apr. 11-15	740, 900	3, 100					744, 000
Apr. 16-20	756, 500	20, 200					776, 700
Apr. 21-25	2, 684, 900	13, 900					2, 698, 800
Apr. 26-30	1, 334, 500	16, 700					1, 351, 200
May 1-5	599, 400	3, 300					602, 700
May 6-10	12, 000	70, 800	132, 000				214, 800
May 11-15	3, 000	37, 700	1, 645, 900				1, 686, 600
May 16-20		6, 900	243, 400	3, 000			253, 300
May 21-25			1, 215, 900	7, 500			1, 223, 400
May 26-31			1, 539, 700	8, 500		600	1, 548, 800
June 1-5			586, 500	26, 000	600	58, 500	671, 600
June 6-10			1, 751, 500		4, 200	14, 100	1, 769, 800
June 11-15			1, 722, 200		263, 800	1, 000	1, 987, 000
June 16-20			1, 023, 800		682, 300		1, 706, 100
June 21-25			184, 200		1, 254, 600		1, 438, 800
June 26-30			6, 400		855, 300	1, 000	862, 700
July 1-5			65, 000		2, 388, 700		2, 453, 700
July 6-10			61, 000		1, 729, 400		1, 790, 400
July 11-15			98, 800		1, 004, 800		1, 103, 600
July 16-20			184, 500		426, 500		611, 000
July 21-25			796, 200		123, 300		919, 500
July 26-31			844, 100		151, 500		995, 600
Aug. 1-5			550, 600		111, 700		662, 300
Aug. 6-10			483, 700		220, 800		704, 500
Aug. 11-15			1, 481, 700		115, 800		1, 597, 500
Aug. 16-20			1, 300, 600		62, 900		1, 363, 500
Aug. 21-25			155, 100		543, 000		698, 100
Aug. 26-31			73, 200		857, 100		930, 300
Sept. 1-5					321, 400		321, 400
Sept. 6-10			221, 000		324, 400		545, 400
Sept. 11-15			1, 040, 400		131, 000	700	1, 172, 100
Sept. 16-20			1, 041, 500		70, 400		1, 111, 900
Sept. 21-25			242, 400		7, 500		249, 900
Sept. 26-30			35, 100		3, 700	1, 700	40, 500
Oct. 1-5					7, 000	700	7, 700
Oct. 6-10			1, 800		354, 800	300	356, 900
Oct. 11-15			27, 000		678, 400	1, 800	707, 200
Oct. 16-20			52, 200		140, 400	1, 900	194, 500
Oct. 21-25					132, 700	8, 000	140, 700
Oct. 26-31					100	14, 900	15, 000
Nov. 1-5					47, 200	6, 400	53, 600
Nov. 6-10			40, 200		418, 400	900	459. 500
Nov. 11-15					680, 900	300	681, 200
Nov. 16-20					43, 500		43, 500
Nov. 21-25			27, 300		19, 200	2, 700	49, 200
Nov. 26-30						71, 300	71, 300
Dec. 1-5					64, 000	63, 800	127, 800
Dec. 6-10					274, 600	80, 700	355, 300
Dec. 11-15					89, 300	21, 900	111, 200
Dec. 16-20						33, 500	33, 500
Dec. 21-25						6, 000	6, 000
Total	6, 131, 200	172, 600	18, 874, 900	45, 000	14, 605, 200	392, 700	40, 221, 600

NOTE.—The roman numerals appearing in the box heads of the above table refer to the numbers given these areas by the North American Council on Fishery Investigations.

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[5] This section, prepared by J. R. Webster under the direction of O. E. Sette of the Division of Scientific Inquiry, includes landings at Portsmouth, Va.; Cape May and Wildwood, N. J.; New York, N. Y.; Newport, R. I.; New Bedford, Buzzards Bay, Provincetown, Boston, and Gloucester, Mass.; and Portland, Maine, by purse-seine vessels "seiners," drift-gill-net vessels "netters," and such boats as fish by the same methods and on the same grounds as the vessels. It does not include the catch of the smaller boats or the catch by other forms of gear.

Mackerel fishery of the Atlantic coast, 1936—Continued

OPERATING UNITS AND CATCH: BY FLEET CLASSIFICATION AND GROUNDS

Designation	Vessels and boats	Tonnage	Crew	Trips	Total catch
SOUTHERN—AREA XXIII					
Seiners:	*Number*	*Net tons*	*Number*	*Number*	*Pounds*
Regular vessels	43	1,730	552	201	6,079,300
Miscellaneous vessels	2	98	28	3	51,900
Netters:					
Regular vessels	6	115	38	34	167,500
Miscellaneous vessels	1	37	8	1	2,500
Miscellaneous boats	1			2	2,600
Total	[1] 52	1,980	626	241	6,303,800
BLOCK ISLAND—AREA XXII (West of Nantucket Shoals only)					
Seiners:					
Spring:					
Regular vessels	47	1,897	600	312	9,672,900
Miscellaneous vessels	6	167	71	16	378,600
Summer:					
Regular vessels	38	1,531	481	256	5,694,600
Miscellaneous vessels	14	509	168	27	393,900
Miscellaneous boats	1			1	6,000
Fall:					
Regular vessels	29	1,147	376	101	2,335,000
Miscellaneous vessels	14	579	176	20	392,400
Miscellaneous boats	1			1	1,500
Netters:					
Spring:					
Regular vessels	4	81	28	7	42,500
Miscellaneous boats	1			1	2,500
Total	[1] 62	5,911	1,900	742	18,919,900
GULF OF MAINE—AREA XXII (North of Nantucket Shoals only)					
Seiners:					
Regular vessels	46	1,849	586	656	12,441,100
Miscellaneous vessels	28	500	237	251	1,768,500
Miscellaneous boats	13			85	395,600
Netters:					
Spring:					
Miscellaneous vessels	6	61	32	14	42,300
Miscellaneous boats	5			13	32,900
Fall:					
Regular vessels	13	247	94	133	281,100
Miscellaneous vessels	10	131	55	59	31,600
Miscellaneous boats	6			15	4,800
Total	[1] 91	2,788	1,004	1,226	14,997,900
Total seiners	[1] 76			1,930	39,611,300
Total netters	[1] 33			279	610,300
Grand total	[1] 101			2,209	40,221,600

[1] Exclusive of duplication and of boats.

NOTE.—The roman numerals appearing in the stub of the above table refer to the numbers given these areas by the North American Council on Fishery Investigations.

FISHERIES OF THE MIDDLE ATLANTIC STATES

(Area XXIII) [6]

The most recent complete fishery statistics for the Middle Atlantic States (New York, New Jersey, Pennsylvania, and Delaware) are those collected for the year 1935. In that year the yield of the commercial fisheries amounted to 279,438,100 pounds, valued at $6,415,664 to the fishermen, representing an increase of 65 percent in volume and 33 percent in value as compared with the catch in 1933, the most recent previous year for which catch statistics are available. Detailed statistics of these fisheries for 1935 appear in "Fishery Industries of the United States, 1936," appendix I to the Report of the United States Commissioner of Fisheries, 1937. A summary of these fisheries and statistics on the catch and operating units of the fisheries of Delaware for 1936 as well as the 1936 shad fishery of the Hudson River appear in the following tables. Data on the fisheries of Delaware for 1936 were made possible through the cooperation of the State of Delaware in furnishing personnel to aid in a survey of that State.

Fisheries of the Middle Atlantic States, 1935

OPERATING UNITS: BY STATES

Item	New York	New Jersey	Pennsylvania	Delaware	Total
	Number	*Number*	*Number*	*Number*	*Number*
Fishermen:					
On vessels	930	1,039		530	2,499
On boats and shore:					
Regular	1,219	1,391		32	2,642
Casual	2,213	1,870	41	355	4,479
Total	4,362	4,300	41	917	9,620
Vessels:					
Steam	4	3		12	19
Net tonnage	485	150		1,455	2,090
Motor	170	185		13	368
Net tonnage	2,579	3,026		229	5,834
Sail	2	2			4
Net tonnage	12	17			29
Total vessels	176	190		25	391
Total net tonnage	3,076	3,193		1,684	7,953
Boats:					
Motor	750	1,036		44	1,830
Other	1,498	1,605	10	138	3,251
Accessory boats	85	56		36	177
Apparatus:					
Purse seines:					
Mackerel	2				2
Length, yards	1,000				1,000
Menhaden	11	5		12	28
Length, yards	3,840	1,816		6,699	12,355
Other	3	5			8
Length, yards	910	1,820			2,730
Haul seines	81	108	10	61	260
Length, yards	11,901	9,203	1,955	17,955	41,014
Gill nets:					
Anchor	101	3			104
Square yards	39,670	2,500			42,170

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[6] This is the number given to this area by the North American Council on Fishery Investigations. It should be explained that there are included in this area craft whose principal fishing ports are in the area but at times fish elsewhere. A notable example is the southern trawl fishery which extends into area XXIV. For a clearer understanding of the statistics published in this section, the reader is referred to the section in the latter part of this document entitled "Statistical survey procedure."

Fisheries of the Middle Atlantic States, 1935—Continued

OPERATING UNITS: BY STATES—Continued

Item	New York	New Jersey	Pennsylvania	Delaware	Total
Apparatus—Continued.					
Gill nets—Continued.	*Number*	*Number*	*Number*	*Number*	*Number*
Drift	151	891	----------	40	1,082
Square yards	354,750	480,662	----------	117,875	953,287
Runaround	35	60	----------	13	108
Square yards	79,179	181,550	----------	3,980	264,709
Stake	135	160	----------	30	325
Square yards	36,920	38,038	----------	13,020	87,978
Lines:					
Hand	159	600	----------	28	787
Hooks and baits	159	894	----------	44	1,097
Trawl	2,646	373	----------	----------	3,019
Hooks	185,900	233,400	----------	----------	419,300
Troll	----------	451	----------	----------	451
Hooks	----------	451	----------	----------	451
Trot with baits or snoods	58	16	----------	----------	74
Baits or snoods	37,400	13,215	----------	----------	50,615
Trot with hooks	14	----------	----------	----------	14
Hooks	2,550	----------	----------	----------	2,550
Pound nets	295	156	----------	22	473
Weirs	----------	104	----------	----------	104
Stop nets	1	56	----------	11	68
Square yards	121	54,600	----------	1,330	56,051
Fyke nets	526	872	----------	257	1,655
Dip nets	140	45	----------	64	249
Cast nets	----------	3	----------	1	4
Scap nets	198	----------	----------	----------	198
Drag nets	1	22	----------	----------	23
Yards at mouth	2	44	----------	----------	46
Drop nets	----------	15	----------	----------	15
Otter trawls:					
Fish	106	66	----------	1	173
Yards at mouth	2,447	1,526	----------	23	3,996
Shrimp	1	1	----------	----------	2
Yards at mouth	23	32	----------	----------	55
Wire baskets	----------	25	----------	----------	25
Pots:					
Crab	----------	10	----------	----------	10
Eel	3,287	1,717	----------	345	5,349
Fish	300	8,191	----------	----------	8,491
Lobster	5,179	12,155	----------	115	17,449
Harpoons	25	----------	----------	----------	25
Spears	146	42	----------	----------	188
Dredges:					
Clam	12	38	----------	18	68
Yards at mouth	10	40	----------	19	69
Crab	2	47	----------	12	61
Yards at mouth	4	51	----------	14	69
Mussel	9	----------	----------	----------	9
Yards at mouth	9	----------	----------	----------	9
Oyster	112	220	----------	14	346
Yards at mouth	167	265	----------	17	449
Scallop	473	17	----------	----------	490
Yards at mouth	540	57	----------	----------	597
Tongs:					
Oyster	361	100	----------	----------	461
Other	1,198	842	----------	2	2,042
Rakes:					
Oyster	----------	23	----------	----------	23
Other	376	1,286	----------	----------	1,662
Forks	534	14	----------	----------	548
Hoes	----------	201	----------	----------	201
Gaffs	----------	1	----------	----------	1

Fisheries of the Middle Atlantic States, 1935—Continued

CATCH: BY STATES[1]

Species	New York		New Jersey		Pennsylvania		Delaware		Total	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	358, 600	$4, 383	41, 300	$233			154, 900	$2, 050	554, 800	$6, 666
Bluefish	1, 002, 700	74, 296	1, 959, 900	117, 649			13, 800	1, 113	2, 976, 400	193, 058
Bonito	207, 300	6, 155	93, 600	3, 254			100	2	301, 000	9, 411
Butterfish	2, 817, 800	120, 150	3, 619, 200	146, 132			600	24	6, 437, 600	266, 306
Carp	185, 100	14, 006	233, 700	16, 385	5, 100	$408	70, 200	5, 095	494, 100	35, 894
Catfish and bullheads	26, 900	3, 401	45, 300	2, 710			48, 400	1, 735	120, 600	7, 846
Cod	1, 037, 500	54, 756	818, 500	29, 387					1, 856, 000	84, 143
Crevalle			900	9					900	9
Croaker	84, 200	1, 336	7, 367, 000	118, 730			590, 800	7, 538	8, 042, 000	127, 604
Cunners			3, 400	34					3, 400	34
Drum:										
Black			9, 300	101					9, 300	101
Red or redfish			39, 100	895			100	2	39, 200	897
Eels:										
Common	313, 200	41, 685	250, 500	20, 914			54, 900	6, 081	618, 600	68, 680
Conger	4, 000	99	16, 400	405			300	4	20, 700	508
Flounders	5, 978, 800	309, 731	3, 248, 500	203, 155			24, 200	1, 104	9, 251, 500	513, 990
Frigate mackerel	49, 200	862	108, 500	1, 272					157, 700	2, 134
Gizzard shad							1, 600	45	1, 600	45
Goosefish	58, 100	1, 126	13, 100	65					71, 200	1, 191
Grayfish	68, 900	1, 002	44, 600	891			2, 000	160	115, 500	2, 053
Groupers			2, 500	99					2, 500	99
Haddock	1, 323, 000	60, 749							1, 323, 000	60, 749
Hake	170, 400	4, 389	33, 700	637			5, 000	28	209, 100	5, 054
Herring, sea	75, 200	1, 457	258, 600	1, 745					333, 800	3, 202
Hickory shad	1, 000	24	2, 500	25					3, 500	49
Kingfish or "king mackerel"			13, 000	533					13, 000	533
King whiting or "kingfish"	23, 800	2, 338	46, 200	2, 451			700	23	70, 700	4, 812
Launce			1, 900	254					1, 900	254
Mackerel	1, 510, 900	40, 868	1, 570, 800	50, 376					3, 081, 700	91, 244
Menhaden	46, 390, 700	89, 387	49, 757, 700	92, 623			83, 454, 600	292, 091	179, 603, 000	474, 101
Mullet			21, 000	1, 634			78, 500	2, 276	99, 500	3, 910
Mummichog	4, 200	370	9, 000	746					13, 200	1, 116
Pigfish			100	2					100	2
Pike or pickerel	100	6							100	6
Pollock	17, 300	569	4, 300	106					21, 600	675
Pompano			4, 100	1, 230					4, 100	1, 230
Scup or porgy	1, 898, 300	47, 288	5, 185, 000	87, 293			12, 200	205	7, 095, 500	134, 786
Sea bass	411, 700	29, 243	1, 655, 500	76, 313			21, 900	548	2, 089, 100	106, 104
Sea robin	46, 500	1, 298	45, 100	460					91, 600	1, 758
Shad	476, 000	39, 563	818, 000	83, 687	10, 200	3, 996	24, 700	4, 544	1, 328, 900	131, 790
Sharks	2, 300	59	42, 400	738					44, 700	797

Silversides	68,400	2,675	1,200	600					69,600	3,275
Skates	47,700	836	84,200	646					131,900	1,482
Snapper, red			15,300	1,144					15,300	1,144
Spanish mackerel			23,600	1,723					23,600	1,723
Spot			17,700	538			1,500	75	19,200	613
Squeteagues or "sea trout":										
Gray	1,639,700	80,749	8,072,200	228,713			428,100	11,299	10,140,000	320,761
Spotted			2,700	120					2,700	120
Squirrel hake			25,100	253					25,100	253
Striped bass	37,100	4,781	7,700	1,247			16,700	2,207	61,500	8,235
Sturgeon	7,800	1,550	11,500	1,690			500	187	19,800	3,427
Suckers	18,800	1,325	54,000	3,324	15,700	1,256	600	18	89,100	5,923
Sunfish	1,000	59							1,000	59
Swellfish	5,000	250							5,000	250
Swordfish	42,600	8,850							42,600	8,850
Tautog	17,700	770	24,400	647			1,000	20	43,100	1,437
Thimble-eyed mackerel	600	6	244,600	3,526					245,200	3,532
Tilefish	2,494,200	94,100	100	6					2,494,300	94,106
Tomcod	7,300	131							7,300	131
Tuna or "horse mackerel"	6,100	350	18,000	793					24,100	1,143
Whitebait	9,100	1,035							9,100	1,035
White perch	55,900	2,798	35,200	3,038			22,000	1,203	113,100	7,039
Whiting	2,284,000	61,794	3,340,100	33,937			5,000	32	5,629,100	95,763
Yellow perch	7,900	466	1,500	180			3,800	284	13,200	930
Total	71,294,600	1,213,121	89,363,300	1,345,298	31,000	5,660	85,038,700	339,993	245,727,600	2,904,072
SHELLFISH, ETC.										
Crabs:										
Hard	464,300	13,767	481,000	20,617			351,900	5,886	1,297,200	40,270
King			2,633,300	8,521			502,000	753	3,135,300	9,274
Soft and peelers	125,200	25,720	205,500	67,686			59,300	13,237	390,000	106,643
Lobsters	420,500	87,167	218,800	50,754			4,100	1,025	643,400	138,946
Shrimp	84,700	3,827	109,300	9,367					194,000	13,194
Clams:										
Hard, public [2]	1,524,700	258,665	3,326,600	479,122			38,900	4,910	4,890,200	742,697
Hard, private [2]	120,000	22,155	136,900	21,162			69,500	8,110	326,400	51,427
Soft, public [3]	770,600	71,691	1,055,900	69,878					1,826,500	141,569
Soft, private [3]	8,000	1,000							8,000	1,000
Surf or skimmer	523,300	22,825	313,900	13,829					837,200	36,654
Conchs	8,600	955							8,600	955
Mussels, sea	82,500	4,629	2,900	90			13,000	1,000	98,400	5,719

[1] Excluding the seed oyster fishery. The seed oyster fishery in New York, New Jersey, and Delaware was prosecuted by 1,379 fishermen who used 114 vessels, 73 motorboats, 145 other boats, 230 dredges, 202 tongs, and 25 rakes; and took 937,970 bushels of seed oysters, valued at $309,456 from public beds, while 41,874 bushels, valued at $28,540, were taken from private beds. Of the total number of persons fishing for seed oysters, 1,260 are duplicated among those fishing for market oysters or other species. Similarly, the following craft and gear are duplicated: 81 vessels, 33 motorboats, 19 other boats, 164 dredges, 34 tongs, and 8 rakes.

[2] Statistics on hard clams are based on yields of 8 pounds of meats to the bushel in New York, 9.76 pounds in New Jersey, and 10 pounds in Delaware.

[3] Statistics on soft clams are based on yields of 16 pounds of meats to the bushel in New York, and 20 pounds in New Jersey.

Fisheries of the Middle Atlantic States, 1935—Continued

CATCH: BY STATES—Continued

Species	New York		New Jersey		Pennsylvania		Delaware		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
SHELLFISH, ETC.—continued										
Oysters, market: [4]										
Public, spring	119, 700	$17, 165	10, 400	$1, 860	--------	--------	--------	--------	130, 100	$19, 025
Public, fall	209, 200	30, 387	6, 400	1, 110	--------	--------	--------	--------	215, 600	31, 497
Private, spring	2, 039, 500	342, 130	4, 110, 400	340, 015	--------	--------	--------	--------	6, 149, 900	682, 145
Private, fall	3, 398, 700	579, 605	4, 335, 000	360, 744	--------	--------	581, 400	$54, 989	8, 315, 100	995, 338
Scallops:										
Bay	106, 700	35, 593	--------	--------	--------	--------	--------	--------	106, 700	35, 593
Sea	2, 213, 500	318, 768	426, 600	25, 316	--------	--------	--------	--------	2, 640, 100	344, 084
Squid	1, 371, 200	39, 265	1, 050, 400	28, 081	--------	--------	1, 400	21	2, 423, 000	67, 367
Turtles:										
Green	--------	--------	3, 900	47	--------	--------	--------	--------	3, 900	47
Hawksbill	--------	--------	200	2	--------	--------	--------	--------	200	2
Loggerhead	--------	--------	3, 900	69	--------	--------	--------	--------	3, 900	69
Snapper	--------	--------	7, 200	374	--------	--------	5, 400	443	12, 600	817
Bloodworms	24, 300	20, 125	100	94	--------	--------	--------	--------	24, 400	20, 219
Sandworms	29, 500	26, 800	300	241	--------	--------	--------	--------	29, 800	27, 041
Total	13, 644, 700	1, 922, 239	18, 438, 900	1, 498, 979	--------	--------	1, 626, 900	90, 374	33, 710, 500	3, 511, 592
Grand total	84, 939, 300	3, 135, 360	107, 802, 200	2, 844, 277	31, 000	$5, 660	86, 665, 600	430, 367	279, 438, 100	6, 415, 664

[4] Statistics on oysters are based on yields of 7 pounds of meats to the bushel in New York, 8.91 pounds in New Jersey, and 7 pounds in Delaware.

NOTE.—The above includes the catch made by Middle Atlantic craft in the southern trawl fishery as well as in other fisheries in the South Atlantic.

DELAWARE

Fisheries of Delaware, 1936

OPERATING UNITS: BY GEAR

Item	Purse seines, menhaden	Haul seines	Gill nets			Lines	
			Drift	Run-around	Stake	Hand	Trot, with baits or snoods
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	500						
On boats and shore:							
Regular		6	5	2		2	
Casual		143	47	20	7	2	24
Total	500	149	52	22	7	4	24
Vessels:							
Steam	12						
Net tonnage	1,530						
Motor	1						
Net tonnage	68						
Total vessels	13						
Total net tonnage	1,598						
Boats:							
Motor			17	2	1	2	12
Other		44	6	8	3		12
Accessory boats	39						
Apparatus:							
Number	13	40	32	10	50	24	24
Length, yards	4,610	9,990					
Square yards			84,990	1,600	5,900		
Hooks, baits, or snoods						48	9,600

Item	Pound nets	Stop nets	Fyke nets	Dip nets	Cast nets	Pots	
						Eel	Lobster
Fishermen:							
On boats and shore:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Regular			6	17		4	
Casual	7	6	26	31	2	17	6
Total	7	6	32	48	2	21	6
Boats:							
Motor	2		6	7			4
Other	2	3	10	38	1	10	4
Apparatus:							
Number	16	9	215	48	2	444	105
Square yards		1,220					

Item	Dredges		By hand, other than for oysters	Total, exclusive of duplication
	Clam	Oyster		
Fishermen:	*Number*	*Number*	*Number*	*Number*
On vessels	17	12		524
On boats and shore:				
Regular				34
Casual			42	253
Total	17	12	42	811
Vessels:				
Steam				12
Net tonnage				1,530
Motor	5	2		7
Net tonnage	79	34		157
Total vessels	5	2		19
Total net tonnage	79	34		1,687
Boats:				
Motor				44
Other			42	145
Accessory boats				39
Apparatus:				
Number	10	4		1,099
Yards at mouth	12	5		

Fisheries of Delaware, 1936—Continued

CATCH: BY GEAR—Continued

Species	Purse seines		Haul seines		Gill nets					
					Drift		Runaround		Stake	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives			127, 800	$1, 278	2, 000	$50				
Bluefish					3, 900	474				
Carp			23, 200	1, 838						
Catfish and bullheads			3, 500	210						
Croaker			104, 600	978	83, 200	1, 223				
Menhaden	32, 622, 600	$163, 116								
Mullet			1, 200	24			44, 500	$890		
Shad					7, 500	1, 116			200	$45
Spot					16, 000	800				
Squeteagues or "sea trout," gray			230, 000	4, 520	52, 400	2, 770				
Striped bass			5, 800	788			1, 000	170	4, 000	300
White perch			11, 600	764	1, 700	134	500	60		
Turtles, snapper			200	16						
Total	32, 622, 600	163, 116	507, 900	10, 416	166, 700	6, 567	46, 000	1, 120	4, 200	345

Species	Lines				Pound nets		Stop nets		Fyke nets	
	Hand		Trot with baits or snoods							
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives									14, 700	$147
Bluefish	5, 000	$600								
Carp					1, 000	$93	3, 400	$315	2, 000	120
Catfish and bullheads					1, 700	51			11, 400	386
Eels, common									13, 700	1, 629
Flounders									1, 800	90
Sea bass	15, 000	600								
Squeteagues or "sea trout," gray	3, 000	150							200	18
Striped bass									16, 100	1, 598
Tautog	1, 000	20								
White perch					2, 200	110			8, 200	440
Yellow perch					600	48				
Crabs, hard			150, 000	$2, 400					5, 600	229
Turtles, snapper							200	20	1, 300	78
Total	24, 000	1, 370	150, 000	2, 400	5, 500	302	3, 600	335	75, 000	4, 735

Species	Dip nets		Cast nets		Pots			
					Eel		Lobster	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Carp			1, 000	$70				
Eels, common					57, 500	$6, 937		
Crabs, soft and peelers	42, 600	$9, 712						
Lobsters							3, 600	$825
Total	42, 600	9, 712	1, 000	70	57, 500	6, 937	3, 600	825

Fisheries of Delaware, 1936—Continued

CATCH: BY GEAR—Continued

Species	Dredges				By hand		Total	
	Clam		Oyster					
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives							144,500	$1,475
Bluefish							8,900	1,074
Carp							30,600	2,436
Catfish and bullheads							16,600	647
Croaker							187,800	2,201
Eels, common							71,200	8,566
Flounders							1,800	90
Menhaden							32,622,600	163,116
Mullet							45,700	914
Sea bass							15,000	600
Shad							7,700	1,161
Spot							16,000	800
Squeteagues or "sea trout," gray							285,600	7,458
Striped bass							26,900	2,856
Tautog							1,000	20
White perch							24,200	1,508
Yellow perch							600	48
Crabs:								
Hard							155,600	2,629
King					378,400	$578	378,400	578
Soft and peelers							42,600	9,712
Lobsters							3,600	825
Clams:								
Hard, public	2,900	$575					2,900	575
Hard, private	42,800	5,725	1,200	$300			44,000	6,025
Oysters, market, private, fall			5,500	800			5,500	800
Turtles, snapper							1,700	114
Total	45,700	6,300	6,700	1,100	378,400	578	34,141,000	216,228

OPERATING UNITS: BY COUNTIES

Item	Kent	New Castle	Sussex
Fishermen:	*Number*	*Number*	*Number*
On vessels	24		500
On boats and shore:			
Regular		1	33
Casual	54	34	165
Total	78	35	698
Vessels:			
Steam			12
Net tonnage			1,530
Motor	6		1
Net tonnage	89		68
Total vessels	6		13
Total net tonnage	89		1,598
Boats:			
Motor	2	8	34
Other	50	11	84
Accessory boats			39
Apparatus:			
Purse seines, menhaden			13
Length, yards			4,610
Haul seines	9	8	23
Length, yards	2,350	985	6,655
Gill nets:			
Drift	4	10	18
Square yards	5,600	59,175	20,215

Fisheries of Delaware—Continued

OPERATING UNITS: BY COUNTIES—Continued

Item	Kent	New Castle	Sussex
Apparatus—Continued.			
Gill nets—Continued	*Number*	*Number*	*Number*
Runaround			10
Square yards			1,600
Stake	20		30
Square yards	3,500		2,400
Lines:			
Hand			24
Hooks			48
Trot with baits or snoods			24
Baits or snoods			9,600
Pound nets		3	13
Stop nets	5	4	
Square yards	740	480	
Fyke nets	47	100	68
Dip nets			48
Cast nets	2		
Pots:			
Eel	24	50	370
Lobster			105
Dredges:			
Clam	10		
Yards at mouth	12		
Oyster	4		
Yards at mouth	5		

CATCH: BY COUNTIES

Species	Kent		New Castle		Sussex	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives					144,500	$1,475
Bluefish					8,900	1,074
Carp	5,800	$415	24,700	$2,014	100	7
Catfish and bullheads			16,600	647		
Croaker	60,600	538			127,200	1,663
Eels, common	600	90	9,300	1,021	61,300	7,455
Flounders					1,800	90
Menhaden					32,622,600	163,116
Mullet					45,700	914
Sea bass					15,000	600
Shad	300	75	4,100	608	3,300	478
Spot					16,000	800
Squeteagues or "sea trout," gray	145,400	3,052			140,200	4,406
Striped bass	300	18			26,600	2,838
Tautog					1,000	20
White perch	3,700	254			20,500	1,254
Yellow perch					600	48
Crabs:						
Hard			5,600	229	150,000	2,400
King	378,400	578				
Soft and peelers					42,600	9,712
Lobsters					3,600	825
Clams:						
Hard, public	2,900	575				
Hard, private	44,000	6,025				
Oysters, market, private, fall	5,500	800				
Turtles, snapper	400	36	1,300	78		
Total	647,900	12,456	61,600	4,597	33,431,500	199,175

Industries related to the fisheries of the Middle Atlantic States

OPERATING UNITS, SALARIES, AND WAGES, 1935

Item	New York	New Jersey	Pennsylvania	Delaware	Total
Transporting:					
Persons engaged:	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	60	9	-----	-----	69
On boats	2	70	-----	-----	72
Total	62	79	-----	-----	141
Vessels, motor	19	4	-----	-----	23
Net tonnage	307	71	-----	-----	378
Boats	2	61	-----	-----	63
Wholesale and manufacturing:					
Establishments	221	123	47	17	408
Persons engaged:					
Proprietors	131	113	44	14	302
Salaried employees	787	146	110	28	1,071
Wage earners:					
Average for season	2,487	1,422	371	490	4,770
Average for year	2,097	892	319	177	3,485
Paid to salaried employees	$2,057,758	$305,516	$217,826	$23,946	$2,605,046
Paid to wage earners	$2,869,058	$786,618	$314,788	$90,997	$4,061,461
Total, salaries and wages	$4,926,816	$1,092,134	$532,614	$114,943	$6,666,507
Fishermen manufacturing	485	73	-----	-----	558

PRODUCTS MANUFACTURED

Item	New York		New Jersey		Pennsylvania		Delaware	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
By manufacturing establishments:								
Buffalofish, smoked pounds	854,600	$215,950	-----	-----	-----	-----	-----	-----
Butterfish, smoked do	581,900	150,129	73,176	$22,363	(1)	(1)	-----	-----
Carp, smoked do	-----	-----	54,678	21,097	-----	-----	-----	-----
Cisco, chubs and tullibees, smoked pounds	3,405,700	1,013,710	198,247	75,389	(1)	(1)	-----	-----
Cod, fresh fillets [2] do	3,122,000	394,450	(1)	(1)	-----	-----	-----	-----
Flounders, fresh fillets [2] pounds	1,341,568	213,809	(1)	(1)	-----	-----	-----	-----
Haddock, fresh fillets [2] pounds	1,947,000	247,250	(1)	(1)	-----	-----	-----	-----
Hake, fresh fillets [2] do	109,500	12,550	-----	-----	-----	-----	-----	-----
Herring, sea, kippered pounds	146,600	19,140	-----	-----	(1)	(1)	-----	-----
Lake trout, smoked do	205,400	64,601	(1)	(1)	(1)	(1)	-----	-----
Mackerel, smoked do	446,900	66,427	10,644	2,301	(1)	(1)	-----	-----
Pollock, fresh fillets [2] do	44,125	5,912	-----	-----	-----	-----	-----	-----
Paddlefish or spoonbill cat, smoked pounds	312,000	128,945	-----	-----	-----	-----	-----	-----
Salmon:								
Smoked do	6,319,600	1,863,699	382,909	130,273	(1)	(1)	-----	-----
Kippered do	349,250	104,900	55,885	22,015	(1)	(1)	-----	-----
Caviar, canned [2] standard cases	2,149	44,997	-----	-----	-----	-----	-----	-----
Shad, smoked pounds	78,200	16,038	(1)	(1)	(1)	(1)	-----	-----
Sturgeon:								
Smoked do	1,252,900	846,700	191,194	134,480	(1)	(1)	-----	-----
Caviar, canned [2] standard cases	3,112	426,254	-----	-----	-----	-----	-----	-----
Whitefish:								
Smoked pounds	1,505,100	450,246	166,927	54,267	(1)	(1)	-----	-----
Caviar, canned [2] standard cases	1,020	21,195	-----	-----	-----	-----	-----	-----
Crab, king, dry scrap [2] tons	-----	-----	293	12,858	-----	-----	(1)	(1)
Clams, soft, fresh-shucked gallons	-----	-----	16,400	16,190	-----	-----	-----	-----
Marine-shell products:								
Buttons [2] gross	405,978	309,171	1,542,264	1,104,134	(1)	(1)	-----	-----
Novelties [2]	-----	87,250	-----	125,082	-----	-----	-----	-----

See footnotes at end of table.

Industries related to the fisheries of the Middle Atlantic States—Continued

PRODUCTS MANUFACTURED—Continued

Item	New York		New Jersey		Pennsylvania		Delaware	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
By manufacturing establishments—Continued.								
Oysters, fresh shucked gallons	473, 588	$744, 472	424, 796	$729, 309	72, 825	$144, 214	20, 600	$26, 100
Oyster-shell products:								
Poultry feed [2] tons	---------	---------	6, 428	47, 317	4, 532	39, 678	(1)	(1)
Lime [2] do	---------	---------	2, 102	9, 003	1, 220	5, 086	(1)	(1)
Whale products:								
Sperm oil [2] gallons	1, 848	370	---------	---------	---------	---------	-------	---------
Whale oil [2] do	3, 139, 968	1, 360, 662	---------	---------	---------	---------	-------	---------
Unclassified products:								
Smoked pounds	(3)	(3)	(3)	(3)	[4] 1,425,000	[4] 368,663	-------	---------
Canned [2] standard cases	[5] 17, 100	[5] 167, 082	(3)	(3)	---------	---------	-------	---------
Miscellaneous [6]	---------	[7] 594, 769	---------	[8] 1,584,722	---------	[9] 214 221	-------	[10] 232, 483
Total	---------	9, 570, 678	---------	4, 090, 800	---------	771, 862	-------	258, 583
By fishermen:								
Eels, smoked pounds	17, 600	5, 640	2, 700	820	---------	---------	-------	---------
Herring, sea, smoked pounds	---------	---------	4, 000	160	---------	---------	-------	---------
Mackerel, smoked do	---------	---------	400	40	---------	---------	-------	---------
Whiting, smoked do	---------	---------	350	35	---------	---------	-------	---------
Scallops:								
Bay, fresh shucked gallons	14, 506	43, 433	---------	---------	---------	---------	-------	---------
Sea, fresh shucked gallons	229, 203	271, 328	46, 799	51, 349	---------	---------	-------	---------
Crab meat, packaged, fresh cooked pounds	---------	---------	417	313	---------	---------	-------	---------
King crab scrap tons	---------	---------	232	5, 623	---------	---------	-------	---------
Total	--------	320, 401	---------	58, 340	---------	---------	-------	---------
Grand total	---------	9, 891, 079	---------	4, 149, 140	---------	771, 862	-------	258, 583

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[1] The production of this item is included under "Unclassified products."

[2] Data are for 1936.

[3] This item has been included under "Miscellaneous."

[4] Includes smoked butterfish, chubs, haddock fillets, finnan haddie, sea herring (bloaters and kippers) lake trout, mackerel, salmon, shad, sturgeon, and whitefish; and kippered salmon and shad.

[5] Includes canned pickled eels, fish paste, hard-clam products, pickled sea mussels, and terrapin, and turtle products.

[6] Both 1935 and 1936 data are included in these items.

[7] Includes fresh fillets of bluefish and halibut; smoked eels; halibut- and tuna-liver oil; menhaden products; miscellaneous fish meal; and mussel-shell buttons.

[8] Includes fresh fillets of cod, flounders and haddock; smoked bluefish, cod, cod fillets and steaks, eels, flounders, goosefish, haddock, lake trout, shad, and sea herring (bloaters); fresh-shucked soft clams; salted boneless cod; canned hard-clam products and oysters; swordfish, tuna and totuava liver oil; and menhaden products.

[9] Includes fresh-shucked hard clams, marine-shell buttons; and miscellaneous fish scrap.

[10] Includes oyster-shell products, king crab scrap, and menhaden products.

NOTE.—Unless otherwise indicated, data are for 1935. The total value of the manufactured products fo the Middle Atlantic States was as follows: By manufacturing establishments, $14,691,923; and by fishermen $378,741. Some of the above products may have been manufactured from fishery products imported from another State or a foreign country; therefore, they cannot be correlated directly with the catch withi the State. Of the total number of persons engaged on transporting craft, 125 have been included as fishermen, and among the total number of persons engaged in the preparation of fishermen's prepared products 552 have been included as fishermen. The whale products shown above were manufactured on a floatin factory ship operating in the Southern Hemisphere.

VESSEL FISHERIES AT NEW YORK CITY

During 1936 fishing vessels of 5 net tons capacity or greater lande 37,807,000 pounds of fishery products at New York City. Th landings consisted of bluefish, 1,228,000 pounds; butterfish, 966,00 pounds; cod, 6,736,000 pounds; croaker, 5,000 pounds; conger eels

5,000 pounds; flounders, 10,892,000 pounds; haddock, 9,758,000 pounds; hake, 73,000 pounds; halibut, 9,000 pounds; mackerel, 3,434,000 pounds; pollock, 65,000 pounds; sea bass, 594,000 pounds; scup or porgy, 1,066,000 pounds; swordfish, 1,000 pounds; tilefish, 2,563,000 pounds; whiting 288,000 pounds; wolffish, 3,000 pounds; sea scallops, 110,000 pounds; and squid, 11,000 pounds. Data on the landings at New York City are also included in the catch by States.

SHAD FISHERY OF THE HUDSON RIVER

The shad fishery of the Hudson River in 1936 was prosecuted by 476 fishermen who used 207 boats, 14 haul seines, 124 drift gill nets, 1,223 stake gill nets, and 16 fyke nets. The total commercial catch amounted to 697,225 shad having a weight of 2,467,900 pounds and a value to the fishermen of $170,187. This is an increase of 168 percent in the number of shad and 141 percent in their value as compared with 1935. The average price per pound received by the fishermen was about 7 cents compared with a price of about 8 cents in 1935.

Gill nets accounted for 99 percent of the weight of the shad taken, while haul seines accounted for less than 1 percent. Fyke nets accounted for the remainder of the catch.

Statistics of the catch of shad in the Hudson River also are included in the catch data for New York and New Jersey which are published elsewhere in this report.

Shad fishery of the Hudson River, 1936

Item	New York			New Jersey			Total		
	Number	*Pounds*	*Value*	*Number*	*Pounds*	*Value*	*Number*	*Pounds*	*Value*
Fishermen:									
On boats and shore:									
Regular	34			124			158		
Casual	318						318		
Total	352			124			476		
Boats, other than motor	166			41			207		
Apparatus:									
Haul seines	14						14		
Length, yards	2,090						2,090		
Gill nets:									
Drift	124						124		
Square yards	368,490						368,490		
Stake	551			672			1,223		
Square yards	32,240			70,940			103,180		
Fyke nets	16						16		
Shad caught:									
With haul seines	7,884	16,800	$1,108				7,884	16,800	$1,108
With drift gill nets	253,562	683,800	43,187				253,562	683,800	43,187
With stake gill nets	42,299	133,100	8,448	393,211	1,633,500	$117,379	435,510	1,766,600	125,827
With fyke nets	269	700	65				269	700	65
Total	304,014	834,400	52,808	393,211	1,633,500	117,379	697,225	2,467,900	170,187

FISHERIES OF THE CHESAPEAKE BAY STATES

(Area XXIII)[7]

The yield of the commercial fisheries of the Chesapeake Bay States (Maryland and Virginia) during 1936 amounted to 314,094,800 pounds valued at $6,487,641 to the fishermen. This is an increase of 18 percent in volume and 17 percent in value as compared with the catch in the previous year. These fisheries gave employment to 18,283 fishermen or 4 percent less than during 1935.

There were 585 wholesale and manufacturing establishments in the two States in 1936, the same number as in the previous year. In 1936 these establishments gave employment to 12,663 persons, paid $3,073,443 in salaries and wages, and produced manufactured products (canned, cured, packaged, and byproducts), valued at $9,813,684. In 1935 the wholesale and manufacturing firms employed 13,213 persons, paid $3,055,029 in salaries and wages, and produced manufactured products valued at $9,411,465.

Fisheries of the Chesapeake Bay States, 1936

SUMMARY OF CATCH

Product	Maryland		Virginia		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Fish	12, 114, 800	$399, 392	225, 115, 500	$1, 899, 541	237, 230, 300	$2, 298, 933
Shellfish, etc	31, 676, 100	1, 776, 081	45, 188, 400	2, 412, 627	76, 864, 500	4, 188, 708
Total	43, 790, 900	2, 175, 473	270, 303, 900	4, 312, 168	314, 094, 800	6, 487, 641

OPERATING UNITS: BY STATES

Item	Maryland	Virginia	Total
Fishermen:	*Number*	*Number*	*Number*
On vessels	729	1, 830	2, 559
On boats and shore:			
Regular	4, 222	5, 004	9, 226
Casual	2, 320	4, 178	6, 498
Total	7, 271	11, 012	18, 283
Vessels:			
Steam		25	25
Net tonnage		2, 882	2, 882
Motor	3	181	184
Net tonnage	19	2, 577	2, 596
Sail	145		145
Net tonnage	1, 781		1, 781
Total vessels	148	206	354
Total net tonnage	1, 800	5, 459	7, 259
Boats:			
Motor	3, 023	3, 625	6, 648
Other	1, 871	3, 259	5, 130
Accessory boats		112	112
Apparatus:			
Purse seines, menhaden		33	33
Length, yards		10, 370	10, 370
Haul seines	184	176	360
Length, yards	32, 096	63, 751	95, 847

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[7] This is the number given to this area by the North American Council on Fishery Investigations. It should be explained that there may be included under this area, craft whose principal fishing ports are in the area but at times fish elsewhere. Data on the operating units and catch of the fisheries of the Chesapeake Bay States have been taken largely from statistics collected by the State fishery agencies of Maryland and Virginia. Supplementary surveys, compilations, and analyses have been made by agents of this Bureau in order that the figures may be presented in a manner comparable with those of other sections. It should be observed that the persons engaged, gear and craft employed, and catch of the seed oyster fishery are not included among the statistics of the fishery for market oysters and other species but are shown in separate tables in this section. For a clearer understanding of the statistics published in this section, the reader is referred to the section in the latter part of this document entitled "Statistical survey procedure."

Fisheries of the Chesapeake Bay States, 1936—Continued

OPERATING UNITS: BY STATES—Continued

Item	Maryland	Virginia	Total
Apparatus—Continued.			
Gill nets:	*Number*	*Number*	*Number*
Anchor	299	2	301
Square yards	39, 941	800	40, 741
Drift	242	203	445
Square yards	219, 587	172, 378	391, 965
Stake	2, 811	5, 100	7, 911
Square yards	224, 166	219, 762	443, 928
Lines:			
Hand	80	28	108
Hooks	120	56	176
Trot with baits or snoods	1, 881	2, 140	4, 021
Baits or snoods	1, 344, 000	1, 174, 520	2, 518, 520
Trot with hooks	----------	8	8
Hooks	----------	7, 400	7, 400
Pound nets	531	1, 902	2, 433
Crab pound nets	----------	45	45
Stop nets	----------	3	3
Square yards	----------	3, 800	3, 800
Fyke nets	2, 352	635	2, 987
Dip nets	991	1, 495	2, 486
Otter trawls	----------	26	26
Yards at mouth	----------	695	695
Slat traps	----------	2	2
Pots:			
Crab	----------	275	275
Eel	14, 119	780	14, 899
Fish	----------	131	131
Scrapes	708	47	755
Yards at mouth	708	55	763
Dredges:			
Crab	----------	232	232
Yards at mouth	----------	411	411
Oyster	408	247	655
Yards at mouth	468	263	731
Tongs:			
Oyster	3, 991	2, 985	6, 976
Other	107	397	504
Rakes, oyster	----------	470	470
Picks	----------	437	437

CATCH: BY STATES

Species	Maryland		Virginia		Total	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	3, 368, 900	$38, 565	8, 688, 700	$70, 413	12, 057, 600	$108, 978
Black bass	61, 200	5, 388	----------	----------	61, 200	5, 388
Bluefish	128, 700	11, 473	317, 300	12, 631	446, 000	24, 104
Bonito	8, 000	640	45, 200	2, 252	53, 200	2, 892
Bowfin	----------	----------	6, 500	195	6, 500	195
Butterfish	527, 200	9, 232	1, 749, 500	40, 704	2, 276, 700	49, 936
Cabio or crab eater	----------	----------	9, 000	431	9, 000	431
Carp	212, 900	12, 431	528, 100	16, 049	741, 000	28, 480
Catfish and bullheads	313, 400	10, 631	429, 500	13, 729	742, 900	24, 360
Cod	----------	----------	4, 300	68	4, 300	68
Crappie	10, 200	521	----------	----------	10, 200	521
Croaker	2, 812, 800	32, 802	28, 442, 000	299, 097	31, 254, 800	331, 899
Drum:						
Black	7, 900	173	7, 100	166	15, 000	339
Red or redfish	4, 200	79	33, 800	843	38, 000	922
Eels:						
Common	136, 300	9, 006	139, 400	12, 238	275, 700	21, 244
Conger	100	3	2, 100	23	2, 200	26
Flounders	29, 800	1, 656	425, 000	23, 976	454, 800	25, 632
Garfish	3, 000	45	----------	----------	3, 000	45
Gizzard shad	60, 900	896	249, 200	2, 683	310, 100	3, 579
Grayfish	----------	----------	800	21	800	21
Haddock	----------	----------	100	2	100	2
Hake	----------	----------	25, 100	404	25, 100	404
Harvestfish	----------	----------	271, 300	2, 494	271, 300	2, 494
Herring, sea	----------	----------	461, 900	2, 327	461, 900	2, 327
Hickory shad	39, 400	765	48, 000	1, 078	87, 400	1, 843
Hogfish	----------	----------	100	3	100	3
King whiting or "kingfish"	12, 000	236	130, 700	3, 929	142, 700	4, 165
Mackerel	----------	----------	124, 400	7, 575	124, 400	7, 575
Menhaden	43, 400	432	167, 515, 100	915, 854	167, 558, 500	916, 286

Fisheries of the Chesapeake Bay States, 1936—Continued

CATCH: BY STATES—Continued

Species	Maryland		Virginia		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
FISH—continued						
Mullet	15, 300	$623	89, 400	$4, 801	104, 700	$5, 424
Pigfish	----------	----------	6, 600	129	6, 600	129
Pike or pickerel	39, 100	6, 211	800	110	39, 900	6, 321
Pollock	----------	----------	100	2	100	2
Pompano	----------	----------	100	8	100	8
Rudderfish	----------	----------	400	4	400	4
Scup	45, 000	1, 075	1, 433, 900	18, 883	1, 478, 900	19, 958
Sea bass	20, 000	1, 050	86, 100	5, 256	106, 100	6, 306
Sea robin	----------	----------	1, 100	11	1, 100	11
Shad	570, 200	56, 414	1, 614, 700	178, 539	2, 184, 900	234, 953
Sharks	----------	----------	11, 500	344	11, 500	344
Sheepshead	----------	----------	300	20	300	20
Skates	----------	----------	2, 200	13	2, 200	13
Spanish mackerel	----------	----------	21, 100	1, 269	21, 100	1, 269
Spot	37, 100	1, 523	909, 500	16, 688	946, 600	18, 211
Squeteagues or "sea trout":						
Gray	1, 340, 400	37, 062	10, 348, 800	189, 193	11, 689, 200	226, 255
Spotted	4, 000	399	112, 400	6, 310	116, 400	6, 709
Striped bass	1, 864, 100	140, 339	519, 500	35, 387	2, 383, 600	175, 726
Sturgeon	500	75	26, 600	2, 417	27, 100	2, 492
Suckers	6, 900	300	2, 200	108	9, 100	408
Sunfish	3, 600	74	----------	----------	3, 600	74
Swellfish	----------	----------	2, 500	41	2, 500	41
Tautog	100	3	1, 900	22	2, 000	25
Tomcod	----------	----------	200	3	200	3
Tuna or "horse mackerel"	----------	----------	100	1	100	1
White perch	273, 500	11, 826	209, 600	7, 572	483, 100	19, 398
Whiting	----------	----------	20, 200	283	20, 200	283
Wolffish	----------	----------	100	1	100	1
Yellow perch	114, 700	7, 444	39, 400	2, 941	154, 100	10, 385
Total	12, 114, 800	399, 392	225, 115, 500	1, 899, 541	237, 230, 300	2, 298, 933
SHELLFISH, ETC.						
Crabs:						
Hard	13, 294, 200	313, 595	26, 137, 800	573, 180	39, 432, 000	886, 775
Soft and peelers	2, 268, 900	199, 286	1, 969, 500	218, 866	4, 238, 400	418, 152
Lobsters	----------	----------	200	15	200	15
Clams: [1]						
Hard, public	48, 000	5, 333	2, 449, 200	373, 895	2, 497, 200	379, 228
Hard, private	----------	----------	176, 000	33, 000	176, 000	33, 000
Mussels, sea	----------	----------	77, 400	2, 257	77, 400	2, 257
Oysters, market: [2]						
Public, spring	3, 676, 500	281, 021	1, 435, 800	114, 231	5, 112, 300	395, 252
Public, fall	11, 341, 200	864, 722	2, 094, 100	156, 743	13, 435, 300	1, 021, 465
Private, spring	221, 100	30, 720	6, 155, 500	540, 749	6, 376, 600	571, 469
Private, fall	821, 200	79, 638	4, 568, 400	395, 457	5, 389, 600	475, 095
Squid	----------	----------	122, 000	4, 043	122, 000	4, 043
Terrapin, diamond back	4, 900	1, 762	300	135	5, 200	1, 897
Turtles:						
Hawksbill	----------	----------	500	5	500	5
Snapper	100	4	1, 700	51	1, 800	55
Total	31, 676, 100	1, 776, 081	45, 188, 400	2, 412, 627	76, 864, 500	4, 188, 708
Grand total	43, 790, 900	2, 175, 473	270, 303, 900	4, 312, 168	314, 094, 800	6, 487, 641

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[1] Statistics on hard clams used in this table are based on yields of 8 pounds of meats per bushel in Maryland, and 8.02 pounds in Virginia.

[2] Statistics on market oysters used in this table are based on yields of 6.15 pounds of meats per bushel in Maryland, and 5.42 pounds in Virginia.

NOTE.—The seed oyster fishery was prosecuted in this section only in Virginia where 1,397 fishermen using 16 motor vessels, 488 motor boats, 267 other boats, 1,029 tongs, and 188 rakes took 830,094 bushels of seed oysters valued at $200,724 from public beds and 15,040 bushels valued at $3,008, from private beds. Of the total number of persons fishing for seed oysters, 1,343 are duplicated among those fishing for market oysters or other species. Similarly, the following craft and gear are duplicated: 10 vessels, 480 motor boats, 248 other boats, 981 tongs, and 188 rakes.

Fisheries of the Chesapeake Bay States, 1936—Continued

SUPPLEMENTARY TABLE SHOWING THE PRODUCTION OF CERTAIN SHELLFISH IN NUMBER AND BUSHELS

Product	Maryland		Virginia		Total	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
Crabs:						
Hard........number	39,882,600	$313,595	78,413,400	$573,180	118,296,000	$886,775
Soft and peelers........do	9,075,600	199,286	7,878,000	218,866	16,953,600	418,152
Clams:						
Hard, public........bushels	6,000	5,333	305,387	373,895	311,387	379,228
Hard, private........do	----------	----------	21,945	33,000	21,945	33.000
Mussels, sea........do	----------	----------	6,450	2,257	6,450	2,257
Oysters, market:						
Public, spring........do	597,805	281,021	264,908	114,231	862.713	395,252
Public, fall........do	1,844,098	864,722	386,365	156,743	2,230,463	1,021,465
Private, spring........do	35,951	30,720	1,135,701	540,749	1,171,652	571,469
Private, fall........do	133,528	79,638	842,878	395,457	976,406	475,095

Industries related to the fisheries of the Chesapeake Bay States, 1936

OPERATING UNITS, SALARIES, AND WAGES

Item	Maryland	Virginia	Total
Transporting:	*Number*	*Number*	*Number*
Persons engaged	354	827	1,181
Vessels:			
Motor	174	312	486
Net tonnage	2,781	3,138	5,919
Sail	1	----------	1
Net tonnage	47	----------	47
Total vessels	175	312	487
Total net tonnage	2,828	3,138	5,966
Wholesale and manufacturing:			
Establishments	328	257	585
Persons engaged:			
Proprietors	449	296	745
Salaried employees	206	186	392
Wage earners:			
Average for season	6,059	5,467	11,526
Average for year	2,501	1,985	4,486
Paid to salaried employees	$280,414	$277,664	$558,078
Paid to wage earners	$1,431,941	$1,083,424	$2,515,365
Total salaries and wages	$1,712,355	$1,361,088	$3,073,443
Fishermen manufacturing	97	----------	97

PRODUCTS MANUFACTURED

Item	Maryland		Virginia	
By manufacturing establishments:				
Alewives:				
Salted:	*Quantity*	*Value*	*Quantity*	*Value*
Corned........pounds	(1)	(1)	729,200	$8,745
Pickled [2]........do	2,447,050	$75,261	1,317,160	17,567
Tight-pack cut........do	(1)	(1)	944,640	37,146
Canned........standard cases	20,949	50,438	3,191	8,089
Roe, canned........do	7,024	51,610	16,944	120,865
Dry scrap........tons	(1)	(1)	407	12,752
Oil........gallons	(1)	(1)	5,550	1,163
Croaker, fresh fillets........pounds	----------	----------	230,000	28,000
Flounders, fresh fillets........do	----------	----------	78,000	15,400
Menhaden:				
Dry scrap........tons	----------	----------	19,717	691,329
Oil........gallons	----------	----------	2,784,223	696,101
Sea bass, fresh fillets........pounds	----------	----------	110,000	18,040
Squeteagues, gray, fresh fillets........do	----------	----------	268,000	33,870
Crabs. blue:				
Meat, packaged, fresh cooked........pounds	2,137,454	802,980	1,443,836	568,277
Dry scrap........tons	(1)	(1)	844	17,650

See footnotes at end of table.

Industries related to the fisheries of the Chesapeake Bay States, 1936—Continued

PRODUCTS MANUFACTURED—Continued

Item	Maryland		Virginia	
	Quantity	*Value*	*Quantity*	*Value*
By manufacturing establishments—Continued.				
Clams, hard, canned chowder……standard cases..	42,795	$84,961	----------	----------
Oysters, fresh-shucked……gallons..	2,188,557	2,579,264	1,604,038	$2,125,558
Oystershell products:				
Poultry feed……tons..	45,137	193,288	26,452	136,369
Lime……do....	25,300	36,920	22,141	122,379
Lime, "burned"……do....	----------	----------	9,802	72,134
Unclassified products:				
Fresh fillets……pounds..	----------	----------	[3] 115,000	[3] 13,750
Salted and smoked……do....	[4] 492,500	[4] 97,125	(5)	(5)
Canned……standard cases..	[6] 16,064	[6] 73,956	(5)	(5)
Dry scrap……tons..	[7] 950	[7] 18,750	[8] 248	[8] 7,853
Miscellaneous……	----------	[9] 919,312	----------	[10] 76,782
Total……	----------	4,983,865	----------	4,829,819
By fishermen:				
Alewives:				
Pickled……pounds..	2,500	110	----------	----------
Smoked……do....	1,000	20	----------	----------
Eels, salted……do....	107,240	8,195	----------	----------
Total……	----------	8,325	----------	----------
Grand total……	----------	4,992,190	----------	4,829,819

[1] The production of this item is included under "Unclassified products."
[2] This item is usually an intermediate product and, although included in the total, may be shown in its final stage of processing in this or another State.
[3] Includes fresh fillets of haddock, sea robin, scup, and Spanish mackerel.
[4] Includes salted spot and corned and tight-pack cut alewives; smoked alewives, butterfish, carp, chub, cisco, tullibees, eels, sea herring, salmon, sturgeon, lake trout, and whitefish.
[5] The production of this item is included under "Miscellaneous."
[6] Includes canned fish paste, oysters, and oyster, shrimp, and terrapin soup.
[7] Includes alewife and blue crab scrap.
[8] Includes miscellaneous fish scrap.
[9] Includes alewife oil, marine-shell products, and pearl essence.
[10] Includes fresh-shucked hard clams, tight-pack alewife roe, menhaden meal, miscellaneous acid scrap, miscellaneous oil, and canned blue crabs.

NOTE.—The total value of manufactured products in the Chesapeake Bay States was as follows: By manufacturing establishments, $9,813,684; and by fishermen, $8,325. Some of the above products may have been imported from another State or a foreign country; therefore, they cannot be correlated directly with the catch within the State. Of the total number of persons engaged on transporting vessels 685 have been included as fishermen, and among the total number of persons engaged in the preparation of fishermen's prepared products, all have been included as fishermen.

MARYLAND

Fisheries of Maryland, 1936

OPERATING UNITS: BY GEAR

Item	Haul seines	Gill nets			Lines		Pound nets	Fyke nets
		Anchor	Drift	Stake	Hand	Trot with baits or snoods		
Fishermen on boats and shore:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Regular……	275	35	81	115	20	1,463	350	40
Casual……	233	17	298	122	20	155	143	131
Total……	508	52	379	237	40	1,618	493	171
Boats:								
Motor……	68	23	80	93	20	1,384	172	54
Other……	152	1	119	55	-------	195	142	62
Apparatus:								
Number……	184	299	242	2,811	80	1,881	531	2,352
Length, yards……	32,096	-------	-------	-------	-------	-------	-------	-------
Square yards……	-------	39,941	219,587	224,166	-------	-------	-------	-------
Hooks, baits, or snoods……	-------	-------	-------	-------	120	1,344,000	-------	-------

Fisheries of Maryland, 1936—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Dip nets	Pots, eel	Scrapes	Dredges, oyster	Tongs		By hand, other than for oysters	Total, exclusive of duplication
					Oyster	Other		
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels				720	9			729
On boats and shore:								
Regular	380	144	344	124	3, 200	87	28	4, 222
Casual	603	65			792	20		2, 320
Total	983	209	344	844	4, 001	107	28	7, 271
Vessels:								
Motor					3			3
Net tonnage					19			19
Sail				144	1			145
Net tonnage				1, 775	6			1, 781
Total vessels				144	4			148
Total net tonnage				1, 775	25			1, 800
Boats:								
Motor	10	123		22	1, 934	16		3, 023
Other	880	36	280	59	64	50		1, 871
Apparatus:								
Number	991	14, 119	708	408	3, 991	107		
Yards at mouth			708	468				

CATCH: BY GEAR

Species	Haul seines		Gill nets					
			Anchor		Drift		Stake	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	80, 500	$918	1, 300	$9	29, 200	$476	15, 600	$265
Black bass	41, 100	3, 473						
Bluefish	4, 400	237			36, 600	2, 776	800	84
Butterfish							2, 100	164
Carp	179, 100	10, 989			2, 300	118	100	3
Catfish and bullheads	85, 800	2, 807			1, 000	38	4, 100	154
Crappie	7, 400	326						
Croaker	785, 600	13, 703					10, 500	178
Drum, black	1, 000	20						
Eels, common	3, 100	156						
Flounders	900	52					200	8
Gizzard shad	6, 800	138	400	25	500	5	200	4
Hickory shad	1, 400	28	900	36	100	4	900	11
Mullet	200	11			14, 000	560		
Pike or pickerel	19, 200	3, 285					300	50
Shad	4, 600	376	12, 600	1, 447	137, 200	13, 747	50, 100	5, 465
Spot	16, 900	689					1, 300	60
Squeteagues or "sea trout":								
Gray	62, 100	3, 011	100	8			2, 400	158
Spotted	2, 100	198						
Striped bass	459, 300	32, 039	62, 900	5, 241	178, 800	15, 840	191, 600	17, 188
Suckers	900	44					500	25
Sunfish	1, 300	25						
White perch	63, 600	3, 016			3, 600	178	10, 500	766
Yellow perch	23, 300	1, 444	500	28	800	62	1, 600	72
Crabs, soft and peelers	121, 300	11, 005						
Turtle, snapper	100	4						
Total	1, 972, 000	87, 994	78, 700	6, 794	404, 100	33, 804	292, 800	24, 655

Fisheries of Maryland, 1936—Continued

CATCH: BY GEAR—Continued

Species	Lines				Pound nets		Fyke nets	
	Hand		Trot with baits or snoods					
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives					3,232,800	$36,775	9,500	$122
Black bass					4,300	482	15,800	1,433
Bluefish	60,000	$6,000			26,900	2,376		
Bonito	8,000	640						
Butterfish					522,300	8,942	2,800	126
Carp					23,400	816	8,000	505
Catfish and bullheads					67,000	2,196	155,500	5,436
Crappie					1,200	106	1,600	89
Croaker					2,011,700	18,821	5,000	100
Drum:								
Black					6,900	153		
Red or redfish	400	12			3,800	67		
Eels:								
Common			200	$10	5,700	365	4,700	381
Conger					100	3		
Flounders					28,600	1,590	100	6
Garfish					3,000	45		
Gizzard shad					52,700	715	300	9
Hickory shad					34,900	662	1,200	24
King whiting or "kingfish"					12,000	236		
Menhaden					43,400	432		
Mullet					1,000	50	100	2
Pike or pickerel					2,000	289	17,600	2,587
Scup	10,000	500			35,000	575		
Sea bass	15,000	750			5,000	300		
Shad					362,400	35,039		
Spot					18,900	774		
Squeteagues or "sea trout":								
Gray	4,000	400			1,271,700	33,481	100	4
Spotted					1,900	201		
Striped bass					959,600	68,918	11,900	1,113
Sturgeon					500	75		
Suckers					1,000	20	4,500	211
Sunfish					600	17	1,700	32
Tautog	100	3						
White perch					134,400	5,062	61,400	2,804
Yellow perch					14,700	913	73,800	4,925
Crabs:								
Hard			13,229,200	311,970				
Soft and peelers			269,600	23,485				
Total	97,500	8,305	13,449,000	335,465	8,889,400	220,496	375,600	19,909

Species	Dip nets		Pots, eel		Scrapes	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Eels, common			122,600	$8,094		
Shad	3,300	$340				
Crabs:						
Hard					65,000	$1,625
Soft and peelers	673,100	68,409			1,204,900	96,387
Total	676,400	68,749	122,600	8,094	1,269,900	98,012

Species	Dredges		Tongs		By hand	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Clams, hard, public			48,000	$5,333		
Oysters, market:						
Public, spring	293,300	$22,151	3,383,200	258,870		
Public, fall	2,717,000	206,047	8,624,200	658,675		
Private, spring	56,400	11,299	164,700	19,421		
Private, fall	345,600	33,130	475,600	46,508		
Terrapin, diamond back					4,900	$1,762
Total	3,412,300	272,627	12,695,700	988,807	4,900	1,762

Fisheries of Maryland, 1936—Continued

OPERATING UNITS: BY COUNTIES

Item	Anne Arundel	Baltimore	Calvert	Caroline	Cecil	Charles	Dorchester	Harford
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	7	34	13				214	
On boats and shore.								
Regular	543	6	287	3	11	48	721	5
Casual	264	68	128	32	99	228	142	51
Total	814	108	428	35	110	276	1, 077	56
Vessels, sail	2	7	3				42	
Net tonnage	25	155	46				410	
Boats:								
Motor	326	19	144	11	43	109	556	16
Other	224	31	136	16	26	42	71	17
Apparatus:								
Haul seines	43	11	20	5	19	13	4	11
Length, yards	4, 018	1, 720	1, 695	1, 639	4, 660	1, 864	1, 450	3, 005
Gill nets:								
Anchor		3			46			
Square yards		443			11, 053			
Drift	8			41	11	13	23	9
Square yards	5, 423			18, 699	12, 998	30, 383	28, 558	14, 752
Stake	33	16		120	120	833	111	125
Square yards	6, 611	3, 596		3, 960	9, 090	62, 841	3, 714	11, 113
Lines, trot with baits or snoods	129	30	41			44	662	
Baits or snoods	68, 500	15, 000	19, 500			48, 700	479, 200	
Pound nets	26	15	15	8	36	33	125	9
Fyke nets	12	337		26	1, 249	44	4	280
Dip nets	108		126			10	23	
Pots, eel	900	648			456	111	3, 899	154
Dredges, oyster	2	14	8				88	
Yards at mouth	3	20	9				99	
Tongs, oyster	630		330			165	663	

Item	Kent	Prince Georges	Queen Annes	St. Marys	Somerset	Talbot	Wicomico	Worcester
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	5		2	9	385	54	6	
On boats and shore:								
Regular	382	2	373	403	621	481	167	169
Casual	174	28	249	267	212	76	179	123
Total	561	30	624	679	1, 218	611	352	292
Vessels:								
Motor	2		1					
Net tonnage	14		5					
Sail				2	77	11	1	
Net tonnage				42	988	90	25	
Total vessels	2		1	2	77	11	1	
Total net tonnage	14		5	42	988	90	25	
Boats:								
Motor	367	1	367	252	159	382	126	145
Other	46	13	97	264	625	75	50	138
Apparatus:								
Haul seines	11	8	5	5	23	4	1	1
Length, yards	3, 335	970	1, 550	1, 350	3, 200	1, 000	500	140
Gill nets:								
Anchor	250							
Square yards	28, 445							
Drift	16	2	5		9	18	58	29
Square yards	44, 608	3, 900	1, 350		4, 832	10, 692	36, 600	6, 792
Stake	903	1	7		258	17	267	
Square yards	109, 590	42	1, 515		4, 994	1, 140	5, 960	
Lines:								
Hand								80
Hooks								120
Trot with baits or snoods	219		115	120	130	243	9	139
Baits or snoods	175, 200		72, 000	110, 800	80, 000	176, 800	7, 200	91, 100
Pound nets	27		6	56	41	86	21	27
Fyke nets	251	42	41		27	22	16	1
Dip nets	42		85	175	366	31		25
Pots, eel	1, 192	87	1, 720		80	4, 860	12	
Scrapes					708			
Yards at mouth					708			
Dredges, oyster				4	226	22	2	42
Yards at mouth				5	263	25	2	42
Tongs:								
Oyster	350		501	500	129	453	240	30
Other								107

Fisheries of Maryland—Continued

CATCH: BY COUNTIES

Species	Anne Arundel		Baltimore		Calvert		Caroline	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	112,300	$1,824	11,500	$163	138,000	$1,725	26,400	$318
Black bass	--------	--------	7,800	711	--------	--------	200	22
Bluefish	4,900	268	200	16	2,300	143	--------	--------
Butterfish	2,100	179	--------	--------	--------	--------	--------	--------
Carp	8,800	402	1,000	46	600	21	4,200	249
Catfish and bullheads	16,700	590	32,800	1,224	7,600	254	9,600	331
Crappie	3,000	108	--------	--------	--------	--------	300	16
Croaker	200,500	3,893	1,000	33	199,000	3,083	21,000	420
Eels, common	12,000	886	10,800	806	--------	--------	100	6
Flounders	1,000	64	600	25	700	45	--------	--------
Gizzard shad	6,900	89	7,000	145	2,400	24	2,000	35
Hickory shad	1,700	39	--------	--------	2,500	50	100	4
Menhaden	42,000	418	--------	--------	--------	--------	--------	--------
Mullet	--------	--------	--------	--------	200	11	--------	--------
Pike or pickerel	900	145	4,100	532	200	30	300	36
Shad	10,400	1,083	100	10	16,100	1,610	11,900	1,477
Spot	7,200	235	200	5	3,100	131	--------	--------
Squeteagues or "sea trout":								
Gray	215,200	10,350	1,800	150	9,600	473	10,000	500
Spotted	--------	--------	--------	--------	500	56	--------	--------
Striped bass	464,700	28,644	27,000	2,132	102,300	7,455	76,400	6,170
Suckers	700	44	--------	--------	--------	--------	300	25
White perch	11,200	613	16,400	692	13,600	573	39,300	1,045
Yellow perch	2,600	136	16,200	1,238	1,500	83	4,400	276
Crabs:								
Hard	528,400	10,563	116,000	3,348	375,200	11,256	--------	--------
Soft and peelers	70,400	8,240	1,600	247	82,500	8,743	--------	--------
Oysters, market:								
Public, spring	559,600	46,631	--------	--------	264,000	26,398	--------	--------
Public, fall	1,133,700	94,472	96,000	7,300	500,200	49,553	--------	--------
Private, fall	--------	--------	--------	--------	97,200	9,720	--------	--------
Total	3,416,900	209,916	352,100	18,823	1,819,300	121,437	206,500	10,930

Species	Cecil		Charles		Dorchester		Harford	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	333,100	$5,588	107,800	$890	216,700	$3,312	276,200	$2,182
Black bass	36,200	3,245	5,500	490	1,300	122	7,900	600
Bluefish	--------	--------	--------	--------	28,500	2,391	1,600	96
Butterfish	--------	--------	--------	--------	2,800	206	--------	--------
Carp	47,500	3,268	58,600	3,073	6,900	279	29,700	1,977
Catfish and bullheads	92,300	2,932	27,600	800	13,200	485	25,400	929
Crappie	5,100	236	--------	--------	200	6	100	5
Croaker	--------	--------	2,000	100	166,400	3,473	--------	--------
Drum:								
Black	--------	--------	--------	--------	1,900	18	--------	--------
Red or redfish	--------	--------	--------	--------	500	10	--------	--------
Eels, common	13,800	990	6,200	416	24,200	1,392	5,800	364
Flounders	--------	--------	--------	--------	11,800	555	--------	--------
Gizzard shad	1,000	31	15,800	206	6,700	73	300	3
Hickory shad	1,400	51	200	8	2,200	54	1,000	30
King whiting or "kingfish"	--------	--------	--------	--------	200	6	--------	--------
Mullet	100	2	--------	--------	--------	--------	--------	--------
Pike or pickerel	13,700	1,847	1,700	239	100	16	13,900	2,796
Shad	55,300	5,370	28,000	2,849	70,700	7,364	18,900	1,850
Spot	--------	--------	--------	--------	2,300	126	500	20
Squeteagues or "sea trout":								
Gray	--------	--------	1,500	125	25,100	1,169	400	16
Spotted	--------	--------	--------	--------	1,400	146	600	36
Striped bass	17,200	1,705	59,700	5,580	199,000	16,546	37,500	3,531
Suckers	2,100	65	200	9	--------	--------	2,000	114
Sunfish	1,700	32	--------	--------	600	17	1,300	25
White perch	26,700	1,077	19,900	1,062	50,300	1,796	6,900	386
Yellow perch	34,400	1,855	1,700	146	1,100	79	10,300	720
Crabs:								
Hard	--------	--------	640,900	16,794	4,054,600	101,375	--------	--------
Soft and peelers	--------	--------	900	300	153,500	12,240	--------	--------
Oysters, market:								
Public, spring	--------	--------	36,500	3,541	461,200	35,505	--------	--------
Public, fall	--------	--------	72,400	7,036	2,001,000	153,486	--------	--------
Terrapin, diamond back	--------	--------	--------	--------	1,900	762	--------	--------
Turtle, snapper	--------	--------	100	4	--------	--------	--------	--------
Total	681,600	28,294	1,087,200	43,668	7,506,300	343,009	440,300	15,680

Fisheries of Maryland—Continued

CATCH: BY COUNTIES—Continued

Species	Kent		Prince Georges		Queen Annes		St. Marys	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	45, 900	$747	1, 500	$30	2, 200	$22	178, 200	$2, 063
Black bass	800	48	1, 500	150	--------	--------	--------	--------
Bluefish	2, 000	93	--------	--------	--------	--------	1, 900	141
Butterfish	2, 800	126	--------	--------	--------	--------	200	10
Carp	7, 100	265	32, 500	1, 980	1, 900	139	2, 400	63
Catfish and bullheads	30, 900	833	13, 100	449	6, 600	296	600	30
Crappie	--------	--------	500	50	--------	--------	--------	--------
Croaker	136, 300	3, 012	200	30	41, 000	702	44, 500	998
Eels, common	20, 300	1, 273	6, 400	604	--------	--------	--------	--------
Flounders	400	33	--------	--------	--------	--------	1, 300	79
Gizzard shad	200	5	200	5	200	2	14, 700	198
Hickory shad	3, 300	55	--------	--------	--------	--------	8, 700	127
Menhaden	--------	--------	--------	--------	--------	--------	1, 400	14
Pike or pickerel	3, 500	490	200	30	200	20	--------	--------
Shad	33, 700	3, 522	4, 100	395	100	13	58, 000	5, 781
Spot	7, 900	321	100	3	--------	--------	1, 100	24
Squeteagues or "sea trout":								
Gray	102, 400	4, 769	200	19	--------	--------	21, 900	1, 080
Spotted	500	56	--------	--------	--------	--------	100	15
Striped bass	428, 900	33, 267	700	84	46, 700	3, 065	123, 900	12, 815
Suckers	300	15	300	8	--------	--------	--------	--------
White perch	34, 200	1, 803	2, 700	140	8, 600	401	4, 000	141
Yellow perch	20, 700	1, 316	600	56	13, 200	817	1, 000	130
Crabs:								
Hard	426, 800	8, 535	--------	--------	829, 900	16, 580	670, 500	17, 013
Soft and peelers	36, 900	5, 740	--------	--------	38, 100	5, 798	77, 200	10, 829
Oysters, market:								
Public, spring	423, 100	24, 700	--------	--------	672, 500	44, 830	353, 500	30, 708
Public, fall	735, 600	43, 035	--------	--------	1, 714, 200	114, 282	992, 800	85, 447
Private, fall	--------	--------	--------	--------	--------	--------	48, 000	4, 800
Total	2, 504, 500	134, 059	64, 800	4, 033	3, 375, 400	186, 967	2, 605, 900	172, 506

Species	Somerset		Talbot		Wicomico		Worcester	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	430, 000	$4, 755	1, 317, 600	$13, 548	28, 400	$512	143, 100	$886
Bluefish	10, 100	923	6, 700	377	500	25	70, 000	7, 000
Bonito	--------	--------	--------	--------	--------	--------	8, 000	640
Butterfish	1, 900	71	2, 400	40	15, 000	600	500, 000	8, 000
Carp	--------	--------	11, 000	644	700	25	--------	--------
Catfish and bullheads	7, 400	387	18, 800	615	8, 300	361	2, 500	115
Crappie	--------	--------	--------	--------	--------	--------	1, 000	100
Croaker	309, 800	3, 520	108, 200	1, 522	112, 900	1, 716	1, 470, 000	10, 300
Drum:								
Black	2, 000	35	--------	--------	--------	--------	4, 000	120
Red or redfish	1, 800	27	--------	--------	--------	--------	1, 900	42
Eels:								
Common	3, 100	282	31, 000	1, 832	100	5	2, 500	150
Conger	--------	--------	--------	--------	--------	--------	100	3
Flounders	8, 200	452	300	18	2, 000	200	3, 500	185
Garfish	--------	--------	--------	--------	3, 000	45	--------	--------
Gizzard shad	1, 100	13	600	8	1, 800	59	--------	--------
Hickory shad	7, 000	140	11, 100	201	100	3	100	3
King whiting or "kingfish"	--------	--------	--------	--------	800	80	11, 000	150
Mullet	--------	--------	--------	--------	--------	--------	15, 000	610
Pike or pickerel	--------	--------	300	30	--------	--------	--------	--------
Scup	--------	--------	--------	--------	--------	--------	45, 000	1, 075
Sea bass	--------	--------	--------	--------	--------	--------	20, 000	1, 050
Shad	51, 300	4, 930	104, 500	10, 434	63, 800	6, 601	43, 300	3, 125
Spot	1, 500	64	3, 100	150	6, 600	314	3, 500	130
Squeteagues or "sea trout":								
Gray	30, 800	1, 480	47, 500	2. 421	61, 100	1, 845	812, 900	12, 665
Spotted	900	90	--------	--------	--------	--------	--------	--------
Striped bass	28, 600	1, 729	153, 200	10, 778	93, 100	6, 316	5, 200	522
Sturgeon	--------	--------	--------	--------	--------	--------	500	75
Suckers	--------	--------	--------	--------	--------	--------	1, 000	20
Tautog	--------	--------	--------	--------	--------	--------	100	3
White perch	9, 300	422	10, 400	472	16, 700	938	3, 300	265
Yellow perch	100	5	6, 600	570	300	17	--------	--------
Crabs:								
Hard	2, 005, 000	50, 125	2, 614, 600	52, 290	18, 600	372	1, 013, 700	25, 344
Soft and peelers	1, 721, 300	137, 893	26, 600	3, 751	600	46	59, 300	5, 459
Clams, hard, public	--------	--------	--------	--------	--------	--------	48, 000	5, 333
Oysters, market:								
Public, spring	377, 700	28, 277	412, 900	31, 769	115, 500	8, 662	--------	--------
Public, fall	2, 262, 300	169, 692	1, 505, 200	115, 772	327, 800	24, 647	--------	--------
Private, spring	28, 800	2, 160	--------	--------	79, 500	5, 962	112, 800	22, 598
Private, fall	70, 200	5, 215	--------	--------	216, 600	16, 241	389, 200	43, 662
Terrapin, diamond back	3, 000	1, 000	--------	--------	--------	--------	--------	--------
Total	7, 373, 200	413, 687	6, 392, 600	247, 242	1, 173, 800	75, 592	4, 790. 500	149, 630

VIRGINIA

Fisheries of Virginia, 1936

OPERATING UNITS: BY GEAR

Item	Purse seines, menhaden	Haul seines	Gill nets			Lines		
			Anchor	Drift	Stake	Hand	Trot with baits or snoods	Trot with hooks
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	1, 194						2	
On boats and shore:								
Regular		329		37	64	14	1, 493	
Casual		279	4	275	260		651	11
Total	1, 194	608	4	312	324	14	2, 146	11
Vessels:								
Steam	25							
Net tonnage	2, 882							
Motor	8						2	
Net tonnage	604						10	
Total vessels	33						2	
Total net tonnage	3, 486						10	
Boats:								
Motor		83		35	59	7	1, 685	3
Other		187	2	158	158		414	5
Accessory boats	99							
Apparatus:								
Number	33	176	2	203	5, 100	28	2, 140	8
Length, yards	10, 370	63, 751						
Square yards			800	172, 378	219, 762			
Hooks, baits, or snoods						56	1, 174, 520	7, 400

Item	Pound nets	Crab pound nets	Stop nets	Fyke nets	Dip nets	Otter trawls
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	103					112
On boats and shore:						
Regular	1, 287	18	3	58	534	
Casual	568	6	4	90	961	
Total	1, 958	24	7	148	1, 495	112
Vessels, motor	15					26
Net tonnage	122					434
Boats:						
Motor	307	13		37	51	
Other	507	5	4	71	1, 411	
Accessory boats	13					
Apparatus:						
Number	1, 902	45	3	635	1, 495	26
Square yards			3, 800			
Yards at mouth						695

Item	Slat traps	Pots			Scrapes	Dredges	
		Crab	Eel	Fish		Crab	Oyster
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels						309	103
On boats and shore:							
Regular		16	19	9	72	10	200
Casual	3		14	8		4	
Total	3	16	33	17	72	323	303
Vessels, motor						101	22
Net tonnage						1, 083	370
Boats:							
Motor		11	14	5		6	100
Other		4	9	5	47		
Apparatus:							
Number	2	275	780	131	47	232	247
Yards at mouth					55	411	263

Fisheries of Virginia, 1936—Continued

OPERATING UNITS By gear—Continued

Item	Tongs		Rakes, oyster	Picks	By hand		Total, exclusive of duplication
	Oysters	Other			Oysters	Other	
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	[illegible]	[illegible]					1,830
On boats and shore:							
Regular	[illegible]	[illegible]	[illegible]	437	159	429	5,004
Casual	[illegible]	[illegible]	[illegible]			30	4,178
Total	[illegible]	[illegible]	[illegible]	437	159	459	11,012
Vessels:							
Steam							25
Net tonnage							2,882
Motor	[illegible]	[illegible]					181
Net tonnage	[illegible]	[illegible]					2,577
Total vessels	[illegible]	[illegible]					206
Total net tonnage	[illegible]	[illegible]					5,459
Boats:							
Motor	[illegible]	[illegible]	[illegible]	[illegible]			3,625
Other	[illegible]	[illegible]	[illegible]	[illegible]	249		3,259
Accessory boats							112
Apparatus: Number	[illegible]	[illegible]	[illegible]	437			

CATCH: By gear

Species	Purse seines		Haul seines		Gill nets			
					Anchor		Drift	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives			[illegible]	[illegible]			34,600	$307
Bluefish			[illegible]	[illegible]			800	111
Bonito			[illegible]	[illegible]				
Butterfish			[illegible]	[illegible]				
[illegible]			[illegible]	5				
Carp			[illegible]	[illegible]			10,000	500
Catfish and bullheads			[illegible]	[illegible]				
Croaker			[illegible]	[illegible]	10,000	$75	71,700	2,119
[illegible]			[illegible]	17				
[illegible]			[illegible]	[illegible]				
Flounders			[illegible]	[illegible]				
Gizzard shad			[illegible]	332			2,100	31
Grayfish			[illegible]	2				
Harvestfish			[illegible]	[illegible]				
Hickory shad			[illegible]	[illegible]			1,500	28
[illegible]			2,700	49				
Mackerel							35,000	2,800
Menhaden	165,853,200	$912,195						
Mullet			[illegible]	[illegible]	10,000	400	1,700	102
Pigfish			[illegible]	[illegible]				
Scup			[illegible]	[illegible]				
Shad			[illegible]	[illegible]			118,500	11,782
[illegible]			[illegible]	4				
Spot			[illegible]	[illegible]	10,000	300	5,600	235
[illegible]								
Gray			[illegible]	[illegible]			500	30
Spotted			[illegible]	[illegible]			100	4
Striped bass			[illegible]	[illegible]			14,900	1,399
Sturgeon							14,100	1,128
[illegible]			[illegible]	[illegible]				
White perch			[illegible]	1,472			400	28
Yellow perch			[illegible]	332				
[illegible]			[illegible]	[illegible]				
Total	165,853,200	912,195	3,706,100	61,593	30,000	775	311,500	20,604

Fisheries of Virginia, 1936—Continued

CATCH: BY GEAR—Continued

Species	Gill nets—Contd.		Lines					
	Stake		Hand		Trot with baits or snoods		Trot with hooks	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	5, 200	$76						
Bluefish	600	10	7, 000	$1, 050				
Butterfish	500	20						
Catfish and bullheads							6, 500	$325
Croaker	26, 400	297						
Flounders	200	7						
Gizzard shad	3, 500	32						
Hickory shad	200	4						
King whiting or "kingfish"	10, 000	300						
Mullet	62, 400	3, 833						
Sea bass			35, 000	2, 800				
Shad	85, 800	10, 415						
Spot	22, 000	567						
Squeteagues or "sea trout":								
Gray	7, 600	226	52, 500	3, 150				
Spotted	100	7						
Striped bass	73, 500	7, 117						
Sturgeon	100	14						
White perch	1, 500	102						
Crabs:								
Hard					19, 354, 400	$371, 763		
Soft and peelers					193, 800	13, 935		
Total	299, 600	23, 027	94, 500	7, 000	19, 548, 200	385, 698	6, 500	325

Species	Pound nets		Crab pound nets		Stop nets		Fyke nets	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	7, 875, 700	$64, 053					25, 300	$408
Bluefish	266, 900	9, 119						
Bonito	44, 300	2, 242						
Butterfish	1, 607, 700	37, 667					500	40
Cabio or crab eater	8, 900	426						
Carp	31, 300	1, 130			78, 000	$2, 581	22, 400	871
Catfish and bullheads	74, 600	2, 317			14, 000	723	175, 500	5, 352
Cod	3, 800	59						
Croaker	21, 316, 400	159, 971					57, 300	985
Drum:								
Black	6, 700	159						
Red or redfish	18, 800	583						
Eels:								
Common	74, 100	8, 209					9, 600	607
Conger	700	7						
Flounders	153, 400	6, 081					2, 500	125
Gizzard shad	136, 200	1, 489					12, 800	189
Harvestfish	235, 600	2, 135					100	3
Herring, sea	460, 200	2, 307						
Hickory shad	37, 400	846					400	19
King whiting or "kingfish"	41, 700	975						
Mackerel	89, 400	4, 775						
Menhaden	1, 661, 700	3, 658						
Mullet	2, 100	42					300	14
Pigfish	6, 200	122						
Pike or pickerel							800	110
Pompano	100	8						
Rudderfish	400	4						
Scup	580, 200	6, 640						
Sea bass	8, 800	416						
Shad	1, 374, 700	153, 192					4, 400	470
Sharks	1, 300	8						
Skates	1, 000	10						
Spanish mackerel	21, 100	1, 269						
Spot	643, 700	11, 028						
Squeteagues or "sea trout":								
Gray	8, 987, 800	152, 613					12, 400	583
Spotted	17, 500	569						
Striped bass	335, 200	20, 869					34, 700	3, 586
Sturgeon	3, 900	389					2, 000	300
Suckers							600	18
Swellfish	1, 900	18						
Tautog	300	3						
White perch	74, 500	2, 703					70, 500	2, 940
Yellow perch	2, 200	148					30, 300	2, 451
Crabs:								
Hard	13, 500	324	41, 700	$773			200	12
Soft and peelers			36, 600	5, 870				
Squid	106, 100	3, 670						
Turtles:								
Hawksbill	500	5						
Snapper							1, 700	51
Total	46, 328, 500	662, 258	78, 300	6, 643	92, 000	3, 304	464, 300	19, 134

Fisheries of Virginia, 1936—Continued

CATCH: BY GEAR—Continued

Species	Dip nets		Otter trawls		Slat traps		Pots, crab	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	100	$3			100	$4		
Bluefish			9, 200	$889				
Bonito			900	10				
Butterfish			68, 700	2, 254				
Carp					8, 000	320		
Catfish and bullheads					200	8		
Cod			500	9				
Croaker			5, 320, 500	119, 386				
Drum:								
Black			400	7				
Red or redfish			14, 100	243				
Eels, conger			1, 400	16				
Flounders			259, 900	17, 381				
Grayfish			500	19				
Haddock			100	2				
Hake			25, 100	404				
Herring, sea			1, 700	20				
Hickory shad					100	2		
Hogfish			100	3				
King whiting or "kingfish"			76, 300	2, 605				
Menhaden			200	1				
Pigfish			100	1				
Pollock			100	2				
Scup			853, 200	12, 228				
Sea bass			42, 300	2, 040				
Sea robin			1, 100	11				
Sharks			10, 200	336				
Sheepshead			100	12				
Skates			1, 200	3				
Spot			19, 600	206				
Squeteagues or "sea trout", gray			1, 167, 900	29, 655				
Sturgeon			6, 500	586				
Swellfish			600	23				
Tautog			1, 600	19				
Tomcod			200	3				
Tuna or "horse mackerel"			100	1				
White perch			25, 000	327				
Whiting			20, 200	283				
Wolffish			100	1				
Crabs:								
Hard	331, 900	13, 882					99, 800	$2, 064
Soft and peelers	1, 310, 900	169, 468					40, 700	3, 336
Lobsters			200	15				
Squid			15, 900	373				
Total	1,642,900	183,353	7,945,800	189, 374	8, 400	334	140, 500	5, 400

Species	Pots—Continued				Scrapes		Dredges			
	Eel		Fish				Crab		Oyster	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Carp			100	$5						
Catfish and bullheads			88, 200	2, 916						
Eels, common	23, 800	$1, 589	4, 500	247						
Crabs:										
Hard					29, 000	$700	6, 259, 500	$183, 462	7, 800	$200
Soft and peelers					257, 400	15, 437				
Oysters, market:										
Private, spring									2, 670, 200	208, 979
Private, fall									2, 995, 600	248, 395
Total	23, 800	1, 589	92, 800	3, 168	286, 400	16, 137	6, 259, 500	183, 462	5, 673, 600	457, 574

Fisheries of Virginia, 1936—Continued

CATCH: By gear—Continued

Species	Tongs		Rakes		Picks		By hand	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Crabs, soft and peelers							126, 600	$10, 128
Clams:								
Hard, public	1, 925, 200	$256, 822	93, 700	$18, 807	238, 700	$55, 870	191, 600	42, 396
Hard, private	176, 000	33, 000						
Mussels, sea							77, 400	2, 257
Oysters, market:								
Public, spring	1, 411, 600	112, 214					24, 200	2, 017
Public, fall	2, 064, 100	154, 243					30, 000	2, 500
Private, spring	2, 562, 800	253, 200	882, 300	75, 223			40, 200	3, 347
Private, fall	1, 272, 900	120, 269	251, 500	22, 760			48, 400	4, 033
Terrapin, diamond back							300	135
Total	9, 412, 600	929, 748	1, 227, 500	116, 790	238, 700	55, 870	538, 700	66, 813

OPERATING UNITS: By counties

Item	Accomac	Arlington	Caroline	Charles City	Chesterfield	Dinwiddie	Elizabeth City	Essex	Fairfax
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	31						121		
On boats and shore:									
Regular	1, 102	2		5			160	62	7
Casual	153	33	1	108	17	3	62	53	32
Total	1, 286	35	1	113	17	3	343	115	39
Vessels, motor	7						29		
Net tonnage	80						431		
Boats:									
Motor	689	7		5			75	31	6
Other	583	10	1	66	5	3	15	34	24
Accessory boats	1								
Apparatus:									
Haul seines	23	6		2				5	4
Length, yards	12, 600	1, 205		650				1, 350	800
Gill nets:									
Drift	7	7		67	4	3			10
Square yards	14, 000	12, 760		59, 732	1, 020	330			13, 643
Stake	2			25				4	
Square yards	550			500				2, 900	
Lines:									
Hand	28								
Hooks	56								
Trot with baits or snoods	430						29	8	
Baits or snoods	234, 400						15, 950	900	
Pound nets	213						197	2	
Stop nets				1					
Square yards				1, 000					
Fyke nets	6	37	1	15			8	3	204
Dip nets	278				1				
Otter trawls							11		
Yards at mouth							294		
Slat traps					2				
Pots:									
Eel		50							
Fish				54	3				
Scrapes	47								
Yards at mouth	55								
Dredges:									
Crab	10						32		
Yards at mouth	21						63		
Oyster	200						14		
Yards at mouth	187						21		
Tongs:									
Oyster	438							62	
Other	219						13		
Rakes, oyster	154								
Picks	229								

Fisheries of Virginia, 1936—Continued

OPERATING UNITS: BY COUNTIES—Continued

Item	Gloucester	Henrico	Isle of Wight	James City	King and Queen	King George	King William	Lancaster	Mathews
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	63	--------	2	--------	--------	--------	--------	447	56
On boats and shore:									
Regular	427	--------	305	12	--------	16	--------	445	329
Casual	43	11	142	41	27	132	28	629	440
Total	533	11	449	53	27	148	28	1,521	825
Vessels:									
Steam	--------	--------	--------	--------	--------	--------	--------	8	--------
Net tonnage	--------	--------	--------	--------	--------	--------	--------	820	--------
Motor	21	--------	1	--------	--------	--------	--------	6	19
Net tonnage	201	--------	5	--------	--------	--------	--------	315	278
Total vessels	21	--------	1	--------	--------	--------	--------	14	19
Total net tonnage	201	--------	5	--------	--------	--------	--------	1,135	278
Boats:									
Motor	160	--------	238	18	--------	27	2	303	217
Other	61	7	92	32	22	101	24	487	256
Accessory boats	--------	--------	--------	--------	--------	--------	--------	36	--------
Apparatus:									
Purse seines, menhaden	--------	--------	--------	--------	--------	--------	--------	12	--------
Length, yards	--------	--------	--------	--------	--------	--------	--------	3,890	--------
Haul seines	1	1	--------	1	--------	3	--------	9	3
Length, yards	500	45	--------	300	--------	550	--------	3,100	2,300
Gill nets:									
Drift	--------	6	--------	24	5	2	5	--------	--------
Square yards	--------	3,300	--------	11,015	940	1,200	3,540	--------	--------
Stake	100	--------	1,150	931	340	435	110	--------	30
Square yards	2,160	--------	34,500	27,930	10,700	15,129	2,848	--------	600
Lines:									
Trot with baits or snoods	36	--------	145	--------	--------	44	7	146	131
Baits or snoods	11,800	--------	101,500	--------	--------	23,150	2,450	107,800	72,050
Pound nets	128	--------	2	7	--------	30	--------	189	525
Crab pound nets	19	--------	--------	--------	--------	--------	--------	--------	19
Fyke nets	20	--------	57	47	1	37	--------	--------	--------
Dip nets	--------	--------	--------	--------	--------	50	--------	408	79
Pots:									
Crab	3	--------	--------	--------	--------	--------	--------	--------	--------
Eel	8	--------	--------	--------	--------	50	--------	--------	--------
Fish	--------	--------	--------	20	--------	--------	--------	--------	--------
Dredges:									
Crab	22	--------	--------	--------	--------	--------	--------	--------	34
Yards at mouth	43	--------	--------	--------	--------	--------	--------	--------	68
Oyster	6	--------	--------	--------	--------	--------	--------	4	--------
Yards at mouth	9	--------	--------	--------	--------	--------	--------	6	--------
Tongs:									
Oyster	268	--------	322	3	--------	--------	17	322	96
Other	53	--------	--------	--------	--------	--------	--------	--------	17

Item	Middlesex	Nansemond	New Kent	Norfolk	Northampton	Northumberland	Prince George	Princess Anne
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	7	24	--------	51	86	754	--------	--------
On boats and shore:								
Regular	235	78	--------	54	631	435	7	45
Casual	439	116	22	170	70	559	10	113
Total	681	218	22	275	787	1,748	17	158
Vessels:								
Steam	--------	--------	--------	--------	--------	17	--------	--------
Net tonnage	--------	--------	--------	--------	--------	2,062	--------	--------
Motor	3	8	--------	9	13	4	--------	--------
Net tonnage	48	43	--------	202	109	312	--------	--------
Total vessels	3	8	--------	9	13	21	--------	--------
Total net tonnage	48	43	--------	202	109	2,374	--------	--------
Boats:								
Motor	426	91	4	32	258	371	3	74
Other	70	41	18	143	345	512	10	52
Accessory boats	--------	--------	--------	--------	12	63	--------	--------
Apparatus:								
Purse seines, menhaden	--------	--------	--------	--------	--------	21	--------	--------
Length, yards	--------	--------	--------	--------	--------	6,480	--------	--------
Haul seines	8	--------	1	10	8	8	3	21
Length, yards	6,040	--------	240	3,100	3,400	890	371	6,150

Fisheries of Virginia, 1936—Continued

OPERATING UNITS: BY COUNTIES—Continued

Item	Middlesex	Nansemond	New Kent	Norfolk	Northampton	Northumberland	Prince George	Princess Anne
Apparatus—Continued.								
Gill nets:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Drift			9	6			8	
Square yards			11, 400	3, 180			2, 700	
Stake		190	100	430	188			
Square yards		7, 600	4, 000	12, 900	4, 400			
Lines:								
Trot with baits or snoods	109	31	2	103	186	262		70
Baits or snoods	89, 500	17, 980	400	51, 500	93, 000	131, 000		24, 500
Pound nets	15			24	109	296		10
Crab pound nets	7							
Stop nets							2	
Square yards							2, 800	
Fyke nets		22	10				4	
Dip nets	79				200	350		
Otter trawls				2				
Yards at mouth				60				
Pots:								
Crab						192		
Eel						15		
Fish			22				20	
Dredges:								
Crab	6			4	8			
Yards at mouth	12			8	8			
Oyster				16	1			
Yards at mouth				30	1			
Tongs:								
Oyster	561	127	2	2	136	108		11
Other				12	75			1
Rakes, oyster					316			
Picks					208			

Item	Prince William	Richmond	Southampton	Stafford	Surry	Warwick	Westmoreland	York
	Number	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Fishermen:								
On vessels						19		169
On boats and shore:								
Regular	8	42		22	4	65	217	289
Casual	45	57	64	23	12	118	392	13
Total	53	99	64	45	16	202	609	471
Vessels, motor						6		55
Net tonnage						55		498
Boats:								
Motor	11	44		14	6	54	315	144
Other	23	55	8	19	6	3	93	38
Apparatus:								
Haul seines	7	3	8	9	3		8	21
Length, yards	1, 150	975	1, 200	1, 840	1, 050		1, 345	12, 600
Gill nets:								
Anchor								2
Square yards								800
Drift	12	28						
Square yards	16, 890	16, 728						
Stake	165	85		188	50	575	2	
Square yards	2, 025	6, 800		61, 100	1, 520	21, 000	600	
Lines:								
Trot with baits or snoods	1	13		14	1	9	329	34
Baits or snoods	300	2, 240		7, 200	300	3, 600	155, 800	27, 200
Trot with hooks	6			1	1			
Hooks	5, 200			2, 000	200			
Pound nets		41		13		13	61	27
Fyke nets	100	1		20	16	18	4	4
Dip nets							50	
Otter trawls						1		12
Yards at mouth						25		316
Pots:								
Crab							80	
Eel	163			210			284	
Fish					12			
Dredges:								
Crab						2		114
Yards at mouth						4		184
Oyster								6
Yards at mouth								9
Tongs:								
Oyster		40				69	234	167
Other						4		3

Fisheries of Virginia, 1936—Continued

CATCH: BY COUNTIES

Species	Accomac		Arlington		Caroline		Charles City	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	499, 900	$2, 499	-----	-----	100	$4	500	$2
Bluefish	92, 300	5, 105	-----	-----	-----	-----	-----	-----
Bonito	24, 200	1, 210	-----	-----	-----	-----	-----	-----
Butterfish	499, 200	13, 391	-----	-----	-----	-----	-----	-----
Carp	-----	-----	38, 800	$1, 210	100	6	28, 100	1, 097
Catfish and bullheads	1, 200	48	10, 800	299	200	10	61, 100	2, 106
Croaker	1, 935, 500	20, 685	-----	-----	-----	-----	-----	-----
Drum:								
Black	6, 600	157	-----	-----	-----	-----	-----	-----
Red or redfish	13, 400	522	-----	-----	-----	-----	-----	-----
Eels, common	15, 600	1, 560	2, 100	168	100	7	4, 700	274
Flounders	34, 800	1, 868	-----	-----	-----	-----	-----	-----
Gizzard shad	-----	-----	-----	-----	-----	-----	500	10
Harvestfish	3, 200	96	-----	-----	-----	-----	-----	-----
Herring, sea	2, 200	17	-----	-----	-----	-----	-----	-----
Hickory shad	-----	-----	-----	-----	-----	-----	500	20
King whiting or "kingfish"	15, 900	603	-----	-----	-----	-----	-----	-----
Mackerel	85, 800	5, 340	-----	-----	-----	-----	-----	-----
Menhaden	36, 000	180	-----	-----	-----	-----	-----	-----
Mullet	4, 800	277	-----	-----	-----	-----	-----	-----
Pigfish	300	6	-----	-----	-----	-----	-----	-----
Pike or pickerel	-----	-----	-----	-----	-----	-----	100	9
Scup	101, 500	1, 841	-----	-----	-----	-----	-----	-----
Sea bass	39, 900	3, 036	-----	-----	-----	-----	-----	-----
Shad	88, 400	8, 000	17, 500	1, 400	-----	-----	38, 900	4, 601
Spanish mackerel	14, 600	736	-----	-----	-----	-----	-----	-----
Spot	69, 100	1, 665	-----	-----	-----	-----	-----	-----
Squeteagues or "sea trout":								
Gray	1, 622, 400	43, 717	-----	-----	-----	-----	-----	-----
Spotted	7, 100	335	-----	-----	-----	-----	-----	-----
Striped bass	18, 900	1, 754	300	30	-----	-----	8, 500	823
Sturgeon	100	12	-----	-----	-----	-----	-----	-----
Suckers	-----	-----	300	25	-----	-----	-----	-----
White perch	4, 300	90	3, 000	120	100	5	3, 900	194
Yellow perch	-----	-----	1, 900	133	-----	-----	200	24
Crabs:								
Hard	4, 116, 400	76, 215	-----	-----	-----	-----	-----	-----
Soft and peelers	737, 700	44, 258	-----	-----	-----	-----	-----	-----
Clams, hard, public	704, 700	158, 416	-----	-----	-----	-----	-----	-----
Mussels, sea	77, 400	2, 257	-----	-----	-----	-----	-----	-----
Oysters, market:								
Public, spring	216, 200	16, 167	-----	-----	-----	-----	-----	-----
Public, fall	798, 300	55, 428	-----	-----	-----	-----	-----	-----
Private, spring	883, 000	93, 083	-----	-----	-----	-----	-----	-----
Private, fall	407, 900	45, 885	-----	-----	-----	-----	-----	-----
Squid	54, 400	1, 088	-----	-----	-----	-----	-----	-----
Terrapin, diamond back	300	135	-----	-----	-----	-----	-----	-----
Total	13, 233, 500	607, 682	74, 700	3, 385	600	32	147, 000	9, 160

Species	Chesterfield		Dinwiddie		Elizabeth City		Essex	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	1, 000	$23	1, 500	$18	268, 300	$1, 973	-----	-----
Bluefish	-----	-----	-----	-----	57, 500	1, 852	-----	-----
Bonito	-----	-----	-----	-----	1, 200	91	-----	-----
Butterfish	-----	-----	-----	-----	155, 600	2, 431	-----	-----
Carp	8, 100	325	-----	-----	100	3	2, 900	$136
Catfish and bullheads	6, 200	183	-----	-----	-----	-----	4, 100	131
Cod	-----	-----	-----	-----	300	5	-----	-----
Croaker	-----	-----	-----	-----	8, 376, 800	99, 151	300	6
Drum:								
Black	-----	-----	-----	-----	200	4	-----	-----
Red or redfish	-----	-----	-----	-----	12, 800	202	-----	-----
Eels:								
Common	100	6	-----	-----	200	1	1, 300	76
Conger	-----	-----	-----	-----	900	11	-----	-----
Flounders	-----	-----	-----	-----	155, 100	9, 368	-----	-----
Gizzard shad	-----	-----	-----	-----	3, 800	41	4, 000	64
Hake	-----	-----	-----	-----	12, 100	181	-----	-----
Harvestfish	-----	-----	-----	-----	91, 100	804	-----	-----
Herring, sea	-----	-----	-----	-----	600	7	-----	-----
Hickory shad	200	6	-----	-----	700	17	-----	-----
Hogfish	-----	-----	-----	-----	100	3	-----	-----
King whiting or "kingfish"	-----	-----	-----	-----	48, 900	1, 280	-----	-----
Mackerel	-----	-----	-----	-----	1, 800	131	-----	-----
Menhaden	-----	-----	-----	-----	4, 100	59	-----	-----
Pigfish	-----	-----	-----	-----	100	1	-----	-----

Fisheries of Virginia, 1936—Continued

CATCH: BY COUNTIES—Continued

Species	Chesterfield		Dinwiddie		Elizabeth City		Essex	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Pompano					100	$8		
Rudderfish					400	4		
Scup					471, 600	5, 625		
Sea bass					26, 500	1, 172		
Shad	300	$35			191, 100	25, 420	600	$106
Sharks					1, 900	9		
Sheepshead					100	12		
Skates					1, 200	3		
Spanish mackerel					2, 000	180		
Spot					253, 500	4, 782		
Squeteagues or "sea trout", gray					1, 610, 100	31, 267	200	8
Striped bass			200	$20	9, 100	1, 027	1, 600	155
Sturgeon					5, 400	450		
Swellfish					600	5		
Tautog					1, 400	17		
White perch					19, 500	279	3, 700	171
Whiting					6, 200	50		
Yellow perch							600	49
Crabs, hard					1, 459, 900	45, 715	14, 300	272
Clams:								
Hard, public					448, 000	84, 000		
Hard, private					176, 000	33, 000		
Oysters, market:								
Public, spring							12, 400	1, 423
Public, fall							9, 300	1, 069
Private, spring					495, 200	55, 905	107, 900	12, 330
Private, fall					803, 700	94, 174	84, 000	9, 603
Squid					5, 800	147		
Turtles, hawksbill					500	5		
Total	15, 900	578	1, 700	38	15, 182, 100	500, 872	247, 200	25, 599

Species	Fairfax		Gloucester		Henrico		Isle of Wight	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives			74, 800	$377	900	$17	9, 300	$273
Bluefish			15, 900	476				
Butterfish			74, 300	743				
Cabio or crab eater			1, 800	90				
Carp	21, 900	$1, 023			8, 000	240	6, 100	183
Catfish and bullheads	56, 300	1, 689	5, 100	153	5, 000	150	12, 100	324
Croaker			5, 571, 800	28, 168			23, 000	575
Eels, common	1, 200	96	1, 100	105				
Flounders			37, 300	1, 118				
Gizzard shad	30, 300	303			4, 000	60	5, 100	131
Harvestfish			7, 800	58				
Hickory shad			500	8				
King whiting or "kingfish"			1, 500	15				
Mackerel			1, 000	80				
Mullet			6, 300	374			3, 600	288
Pigfish			200	2				
Pike or pickerel	400	70						
Scup			2, 500	25				
Shad	24, 600	2, 248	69, 300	5, 544	300	37	20, 700	2, 640
Sharks			200	4				
Spot			115, 500	1, 790				
Squeteagues or "sea trout":								
Gray			793, 200	15, 887			8, 700	233
Spotted			1, 800	144				
Striped bass	9, 400	935	6, 000	480			10, 800	1, 072
Sturgeon			200	22				
Suckers	600	18						
Tautog			100	1				
White perch	20, 600	880	3, 700	181			10, 500	315
Yellow perch	13, 500	951						
Crabs:								
Hard			1, 037, 200	21, 713			522, 000	15, 225
Soft and peelers			4, 800	1, 020				
Clams, hard, public			831, 300	62, 704				
Oysters, market:								
Public, spring							64, 300	5, 715
Public, fall			500	60			129, 700	11, 529
Private, spring			109, 100	9, 252			191, 300	16, 924
Private, fall			132, 700	11, 560			65, 000	5, 679
Squid			100	2				
Total	178, 800	8, 213	8, 907, 600	162, 156	18, 200	504	1, 082, 200	61, 106

Fisheries of Virginia, 1936—Continued

CATCH: BY COUNTIES—Continued

Species	James City		King and Queen		King George		King William	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	600	$3	700	$7	17, 300	$197	1, 000	$15
Butterfish	200	2						
Carp	8, 800	285	-----	-----	8, 500	353	-----	-----
Catfish and bullheads	36, 900	1, 147	200	6	29, 200	1, 004	-----	-----
Croaker	14, 700	180	400	7	-----	-----	-----	-----
Eels, common	900	81	-----	-----	8, 300	498	-----	-----
Gizzard shad	19, 500	192	-----	-----	52, 500	525	-----	-----
Shad	27, 600	3, 092	4, 000	551	13, 900	1, 167	1, 200	129
Squeteagues or "sea trout," gray	500	25	-----	-----	800	24	-----	-----
Striped bass	18, 800	1, 325	100	15	18, 200	1, 304	1, 300	62
White perch	1, 900	126	-----	-----	26, 000	1, 332	-----	-----
Yellow perch	200	16	900	72	1, 700	117	-----	-----
Crabs:								
Hard	-----	-----	-----	-----	378, 000	6, 300	42, 000	700
Soft and peelers	-----	-----	-----	-----	9, 100	2, 275	-----	-----
Oysters, market:								
Public, spring	4, 200	336	-----	-----	-----	-----	-----	-----
Public, fall	4, 200	336	-----	-----	-----	-----	-----	-----
Private, spring	-----	-----	-----	-----	-----	-----	8, 100	720
Private, fall	-----	-----	-----	-----	-----	-----	58, 900	1, 850
Turtle, snapper	1, 700	51	-----	-----	-----	-----	-----	-----
Total	140, 700	7, 197	6, 300	658	563, 500	15, 096	112, 500	3, 476

Species	Lancaster		Mathews		Middlesex		Nansemond	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	1, 664, 500	$10, 381	373, 500	$2, 491	4, 100	$41	-----	-----
Bluefish	9, 100	455	40, 900	1, 093	11, 000	513	-----	-----
Butterfish	6, 200	124	125, 700	1, 477	-----	-----	500	$40
Cabio or crab eater	-----	-----	6, 500	312	-----	-----	-----	-----
Carp	1, 700	51	-----	-----	25, 900	502	-----	-----
Catfish and bullheads	-----	-----	-----	-----	6, 200	166	-----	-----
Croaker	645, 000	6, 383	4, 436, 200	42, 987	330, 700	4, 244	12, 000	360
Drum:								
Black	-----	-----	100	2	-----	-----	-----	-----
Red or redfish	-----	-----	500	11	-----	-----	-----	-----
Eels, common	-----	-----	-----	-----	-----	-----	800	80
Flounders	3, 000	120	23, 500	934	2, 400	122	400	44
Gizzard shad	1, 800	18	10, 500	243	-----	-----	3, 000	30
Harvestfish	8, 100	162	7, 000	80	-----	-----	-----	-----
Hickory shad	2, 700	54	200	2	-----	-----	-----	-----
King whiting or "kingfish"	-----	-----	2, 300	32	-----	-----	-----	-----
Mackerel	-----	-----	3, 800	254	-----	-----	-----	-----
Menhaden	66, 433, 300	362, 924	454, 600	556	61, 000	203	-----	-----
Mullet	-----	-----	1, 000	20	-----	-----	1, 200	100
Scup	-----	-----	1, 600	23	-----	-----	-----	-----
Shad	100, 600	9, 960	461, 900	55, 675	1, 000	80	1, 200	229
Spot	700	14	214, 900	3, 342	111, 300	2, 123	-----	-----
Squeteagues or "sea trout":								
Gray	420, 800	4, 491	1, 184, 200	14, 024	6, 900	196	5, 200	413
Spotted	1, 500	60	25, 400	1, 310	25, 000	1, 772	-----	-----
Striped bass	34, 100	2, 202	6, 900	449	38, 300	667	5, 500	660
Sturgeon	-----	-----	1, 300	148	-----	-----	-----	-----
White perch	5, 200	208	-----	-----	3, 700	81	-----	-----
Yellow perch	-----	-----	-----	-----	3, 500	105	11, 600	1, 160
Crabs:								
Hard	1, 303, 200	37, 470	2, 121, 700	49, 401	1, 896, 900	39, 155	139, 500	3, 487
Soft and peelers	392, 700	58, 056	108, 700	12, 050	44, 900	7, 429	-----	-----
Clams, hard, public	-----	-----	49, 600	9, 300	-----	-----	-----	-----
Oysters, market:								
Public, spring	246, 200	20, 516	8, 200	685	240, 500	22, 329	200	15
Public, fall	491, 700	40, 976	14, 800	1, 300	176, 000	16, 338	-----	-----
Private, spring	506, 800	42, 859	200, 900	16, 732	261, 200	24, 255	281, 900	24, 498
Private, fall	304, 700	25, 805	31, 400	2, 619	-----	-----	114, 900	9, 173
Total	72, 583, 600	623, 289	9, 917, 800	217, 552	3, 250, 500	120, 321	577, 900	40, 289

Fisheries of Virginia, 1936—Continued

CATCH: BY COUNTIES—Continued

Species	New Kent		Norfolk		Northampton		Northumberland	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	26,000	$240	21,100	$192	49,800	$167	4,670,400	$42,473
Bluefish			3,500	98	64,100	1,989	5,100	194
Bonito			1,000	17	18,600	924		
Butterfish			120,100	1,505	721,500	19,806	9,100	224
Cabio or crab eater							600	24
Carp	100	4					5,200	154
Catfish and bullheads	13,500	405						
Cod					3,800	59		
Croaker			970,600	19,144	1,924,500	16,416	841,100	9,155
Drum, red or redfish			300	6	3,500	35	1,100	13
Eels:								
Common	900	48			37,100	5,565	11,000	446
Conger			100	1	700	7		
Flounders			38,600	2,246	9,600	529	13,300	420
Gizzard shad	2,000	20					9,900	50
Grayfish			500	19				
Hake			11,000	198				
Harvestfish			35,400	354	38,900	486		
Herring, sea			400	5	458,000	2,290		
Hickory shad			400	12			30,600	671
King whiting or "kingfish"			20,900	621	3,700	37		
Mackerel			3,500	331	28,500	1,439		
Menhaden					62,300	154	100,463,800	551,778
Mullet			2,200	132	60,300	3,210		
Pollock			100	2				
Scup			227,300	3,074	473,000	4,737		
Sea bass			8,300	438	3,500	175		
Sea robin			1,100	11				
Shad	9,300	784	19,800	2,367	24,800	3,199	392,000	37,093
Skates							1,000	10
Spanish mackerel			500	45	3,200	256	400	20
Spot			20,800	501	43,600	884	9,700	300
Squeteagues or "sea trout":								
Gray			234,900	5,928	3,762,500	56,205	143,700	3,520
Spotted			6,200	378	9,200	528	9,100	195
Striped bass			200	13	12,500	259	141,100	9,291
Sturgeon			1,100	106	500	45		
Swellfish					1,300	13		
Tautog			200	1				
Tuna or "horse mackerel"			100	1				
White perch	200	15	400	18	2,900	58	2,900	117
Whiting			10,300	183				
Wolffish			100	1				
Yellow perch	200	10						
Crabs:								
Hard	12,000	500	455,800	7,989	2,459,900	49,352	5,533,400	89,530
Soft and peelers					205,600	16,448	400,100	72,739
Clams, hard, public			11,500	3,240	280,900	31,623		
Oysters, market:								
Public, spring	200	17			301,900	25,158	32,000	2,000
Public, fall	300	18	2,300	150			56,000	3,500
Private, spring			1,732,800	115,520	603,800	50,316	112,500	12,693
Private, fall			1,732,800	115,521	342,500	28,860	123,800	13,440
Squid			2,600	55	51,600	2,580		
Total	64,700	2,061	5,698,800	280,423	12,068,100	323,809	113,018,900	850,050

Species	Prince George		Princess Anne		Prince William		Richmond	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	1,000	$10	41,800	$401	36,500	$273	26,100	$334
Bluefish			8,700	508				
Bonito			200	10				
Bowfin			6,500	195				
Butterfish			6,200	104				
Carp	69,000	1,936	235,500	6,008	19,900	1,024	17,300	628
Catfish and bullheads	47,100	1,418	1,000	20	45,800	1,666	32,600	911
Croaker			701,000	4,505			15,300	287
Drum, red or redfish			500	10				
Eels, common	900	38	25,000	1,500	16,300	911	5,800	349
Flounders			3,500	85			300	17
Gizzard shad	9,800	63	13,500	135	3,000	30	30,900	311
Hickory shad					1,700	39	1,100	46
King whiting or "kingfish"			1,000	30				
Pigfish			6,000	120				
Pike or pickerel					100	8		
Scup			500	15				
Shad	8,300	908	5,800	696	12,300	1,402	10,200	1,602

Fisheries of Virginia, 1936—Continued

CATCH: BY COUNTIES—Continued

Species	Prince George		Princess Anne		Prince William		Richmond	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Sheepshead			200	$8				
Spanish mackerel			400	32				
Spot			23, 600	472			300	$10
Squeteagues or "sea trout":								
Gray			103, 500	2, 285			2, 800	119
Spotted			15, 500	930			700	13
Striped bass	300	$21	300	18	6, 200	$540	12, 700	1, 163
Sturgeon					16, 100	1, 428		
Suckers			1, 300	65				
White perch	500	20	14, 500	580	19, 300	623	11, 600	650
Yellow perch	100	6					1, 500	90
Crabs, hard			285, 800	4, 764	2, 400	40	23, 200	430
Clams, hard, public			1, 000	270				
Oysters, market:								
Public, spring							12, 500	1, 423
Public, fall							9, 400	1, 070
Private, spring			5, 500	440			107, 900	12, 331
Private, fall			16, 500	1, 320			84, 000	9, 603
Total	137, 000	4, 420	1, 524, 800	25, 526	179, 600	7, 984	406, 200	31, 387

Species	Southampton		Stafford		Surry	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	160, 000	$2, 400			1, 500	$15
Carp			13, 500	$540	1, 500	63
Catfish and bullheads			22, 100	703	13, 500	611
Croaker					200	8
Eels, common			3, 100	155	200	14
Flounders					100	3
Gizzard shad			16, 700	167	2, 200	28
Pike or pickerel			100	13	100	10
Shad	1, 800	180	12, 800	1, 280	5, 200	488
Spot					100	5
Squeteagues or "sea trout," gray					600	30
Striped bass			60, 300	6, 030	2, 900	271
White perch			8, 100	356	800	52
Yellow perch			3, 200	190		
Crabs, hard			33, 800	5, 200	700	92
Total	161, 800	2, 580	173, 700	14, 634	29, 600	1, 690

Species	Warwick		Westmoreland		York	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	36, 200	$181	683, 000	$5, 320	17, 300	$86
Bluefish	100	1	2, 500	110	6, 600	237
Butterfish	7, 600	169			23, 300	688
Cabio or crab eater					100	5
Carp			6, 800	276	300	2
Catfish and bullheads			19, 200	576	100	3
Cod					200	4
Croaker	756, 100	17, 139	11, 000	165	1, 875, 800	29, 532
Drum:						
Black					200	3
Red or redfish	300	3			1, 400	41
Eels:						
Common			2, 700	260		
Conger					400	4
Flounders	18, 200	1, 117	500	30	84, 400	5, 955
Gizzard shad			26, 200	262		
Grayfish					300	2
Haddock					100	2
Hake	600	8			1, 400	17
Harvestfish	79, 200	448			600	6
Herring, sea					700	8
Hickory shad	300	1	8, 700	189	400	13
King whiting or "kingfish"	11, 000	462			25, 500	849
Mullet					10, 000	400
Scup	16, 200	217			139, 700	3, 326
Sea bass	1, 900	97			6, 000	338
Shad	17, 600	4, 116	19, 400	1, 780	12, 300	1, 730
Sharks	500	15			8, 900	316
Spot	2, 400	25			44, 000	775
Squeteagues or "sea trout":						
Gray	50, 300	1, 280	111, 500	2, 788	286, 000	6, 753
Spotted					10, 900	645

Fisheries of Virginia, 1936—Continued

CATCH: BY COUNTIES—Continued

Species	Warwick		Westmoreland		York	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Striped bass	31,900	$217	58,200	$4,245	4,900	$339
Sturgeon	900	93			1,000	113
Swellfish					600	23
Tautog					200	3
Tomcod	200	3				
White perch	7,500	236	22,500	729	12,300	136
Whiting	2,000	27			1,700	23
Yellow perch			300	18		
Crabs:						
Hard	107,800	1,974	776,700	15,774	3,415,200	101,882
Soft and peelers			65,900	4,591		
Lobsters					200	15
Clams, hard, public	11,200	2,310			111,000	22,032
Oysters, market:						
Public, spring	48,800	2,934	248,200	15,513		
Public, fall	49,000	2,934	352,600	22,035		
Private, spring			24,600	1,540	523,000	51,351
Private, fall			48,900	3,055	216,700	17,310
Squid	200	8			7,300	163
Total	1,258,000	36,015	2,489,400	79,256	6,851,000	245,130

SEED OYSTER FISHERY: BY GEAR

Item	Tongs		Rakes		By hand		Total, exclusive of duplication	
OPERATING UNITS								
	Number		*Number*		*Number*		*Number*	
Fishermen:								
On vessels	46						46	
On boats and shore:								
Regular	945		188		54		1,187	
Casual	164						164	
Total	1,155		188		54		1.397	
Vessels, motor	16						16	
Net tonnage	87						87	
Boats:								
Motor	488						488	
Other	79		188				267	
Apparatus, number	1,029		188					
CATCH								
	Bushels	*Value*	*Bushels*	*Value*	*Bushels*	*Value*	*Bushels*	*Value*
Oysters, seed:								
Public, spring	334,018	$59,578	10,575	$2,115	6,000	$1,200	350,593	$62,893
Public, fall	461,976	136,326	5,525	705	14,000	2,800	479,501	139,831
Private, spring			15,040	3,008			15,040	3,008
Total	795,994	195,904	29,140	5,828	20,000	4,000	845,134	205,732

SEED OYSTER FISHERY: BY COUNTIES

Item	Accomac		Elizabeth City		Gloucester		Isle of Wight	
OPERATING UNITS								
	Number		*Number*		*Number*		*Number*	
Fishermen:								
On vessels					30			
On boats and shore:								
Regular	94		17		264		291	
Casual							29	
Total	94		17		294		320	
Vessels, motor					10			
Net tonnage					55			
Boats:								
Motor	23		8		105		150	
Other					30		30	
Apparatus, tongs	38		17		284		320	
CATCH								
	Bushels	*Value*	*Bushels*	*Value*	*Bushels*	*Value*	*Bushels*	*Value*
Oysters, seed:								
Public, spring	26,400	$4,872	4,250	$765	70,325	$12,966	113,698	$20,466
Public, fall	31,200	7,960	4,250	1,275	203.211	61,953	113,700	34,110
Total	57,600	12,832	8,500	2,040	273,536	74,919	227,398	54,576

Fisheries of Virginia, 1936—Continued

SEED OYSTER FISHERY: BY COUNTIES—Continued

Item	King and Queen		Mathews		Nansemond		New Kent	
OPERATING UNITS								
Fishermen:	*Number*		*Number*		*Number*		*Number*	
On vessels					3			
On boats and shore:								
Regular			22		58			
Casual	6		20		58		2	
Total	6		42		119		2	
Vessels, motor					1			
Net tonnage					6			
Boats:								
Motor			19		65		2	
Other	6							
Apparatus, tongs	6		38		97		2	
CATCH								
Oysters, seed:	*Bushels*	*Value*	*Bushels*	*Value*	*Bushels*	*Value*	*Bushels*	*Value*
Public, spring	2,400	$360	28,100	$5,058	35,000	$6,325	500	$75
Public, fall			28,100	8,430	37,800	11,190	500	75
Total	2,400	360	56,200	13,488	72,800	17,515	1,000	150

Item	Norfolk		Northampton		Warwick		York	
OPERATING UNITS								
Fishermen:	*Number*		*Number*		*Number*		*Number*	
On vessels	3				10			
On boats and shore:								
Regular	13		193		100		135	
Casual			3		46			
Total	16		196		156		135	
Vessels, motor	1				4			
Net tonnage	5				21			
Boats:								
Motor			4		30		82	
Other	13		188					
Apparatus:								
Tongs	15		8		69		135	
Rakes			188					
CATCH								
Oysters, seed:	*Bushels*	*Value*	*Bushels*	*Value*	*Bushels*	*Value*	*Bushels*	*Value*
Public, spring	7,815	$1,172	10,575	$2,115	18,530	$2,779	33,000	$5,940
Public, fall	1,685	253	7,525	1,905	18,530	2,780	33,000	9,900
Private, spring			15,040	3,008				
Total	9,500	1,425	33,140	7,028	37,060	5,559	66,000	15,840

NOTE.—Of the total number of persons fishing for seed oysters, 1,343 are duplicated among those fishing for market oysters or other species. Similarly, the following craft and gear are duplicated: 10 vessels, 480 motor boats, 248 other boats, 981 tongs, and 188 rakes.

SHAD AND ALEWIFE FISHERIES OF THE POTOMAC RIVER

The catch of shad in the Potomac River in 1936 amounted to 134,409 in number, 359,800 pounds in weight and their total value to the fishermen was $35,358. The catch of alewives for the same season amounted to 11,287,000 in number, with a total weight of 4,514,800 pounds, and a value to the fishermen of $36,674. These figures show a decrease of 43 percent in the weight and 37 percent in the value of shad as compared with 1935, and an increase of 1 percent in weight and 38 percent in the value of alewives.

Approximately 68 percent of the shad, in weight, were taken with pound nets, and 30 percent with gill nets. About 99 percent of the alewives were taken with pound nets, the remainder being taken with gill nets and fyke nets.

Statistics of the catch of shad and alewives in the Potomac River are also included in the catch data for Maryland and Virginia which are published elsewhere in this report.

Shad and Alewife fisheries of the Potomac River, 1936

Item	Maryland			Virginia			Total		
	Number	*Pounds*	*Value*	*Number*	*Pounds*	*Value*	*Number*	*Pounds*	*Value*
Fishermen on boats and shore:									
Regular	25	------	------	223	------	------	248	------	------
Casual	73	------	------	194	------	------	267	------	------
Total	98	------	------	417	------	------	515	------	------
Boats:									
Motor	36	------	------	92	------	------	128	------	------
Other	16	------	------	110	------	------	126	------	------
Apparatus:									
Haul seines	1	------	------	6	------	------	7	------	------
Length, yards	100	------	------	840	------	------	940	------	------
Gill nets	758	------	------	819	------	------	1,577	------	------
Square yards	88,151	------	------	122,147	------	------	210,298	------	------
Pound nets	43	------	------	250	------	------	293	------	------
Fyke nets	------	------	------	100	------	------	100	------	------
Shad caught:									
With haul seines	225	600	$60	1,824	4,900	$392	2,049	5,500	$452
With gill nets	10,550	28,300	2,824	29,436	78,500	7,119	39,986	106,800	9,943
With pound nets	6,725	19,100	2,395	85,424	227,800	22,491	92,149	246,900	24,886
With fyke nets	------	------	------	225	600	77	225	600	77
Total	17,500	48,000	5,279	116,909	311,800	30,079	134,409	359,800	35,358
Alewives caught:									
With gill nets	------	------	------	67,500	27,000	201	67,500	27,000	201
With pound nets	396,250	158,500	1,527	10,799,500	4,319,800	34,874	11,195,750	4,478,300	36,401
With fyke nets	------	------	------	23,750	9,500	72	23,750	9,500	72
Total	396,250	158,500	1,527	10,890,750	4,356,300	35,147	11,287,000	4,514,800	36,674

TRADE IN FISHERY PRODUCTS IN WASHINGTON, D. C.

The municipal fish wharf and market in Washington, D. C., is located in the southwestern part of the city on an arm of the Potomac River. At the present time 18 firms have stalls in this market, 2 are located in the immediate vicinity of the market, 3 have stalls in the Center Market, located at Fifth and K Streets NW., and 2 are located in other parts of the city. Altogether there are 25 firms which employ 131 persons who received $145,621 in salaries and wages during 1936. Of the total employees 90 were regularly employed. These firms conduct mainly a wholesale business although some retail trade is carried on.

The facilities for handling fish and oysters from boats and vessels that may land at the wharf are good, but only a comparatively small quantity are brought into the city by this method. In the fall and winter, considerable quantities of shell oysters are landed, but most of the oysters handled in Washington are brought in already shucked from Maryland and Virginia, by trucks and other transportation facilities.

During the year 1936 the receipts of fresh and frozen fishery products as received at the municipal fish wharf amounted to 9,395,945 pounds. This is a decrease of 23 percent as compared with 1935, and a decrease of 10 percent as compared with the 5-year average.

During 1936 two firms in Washington, D. C., smoked fishery products and one firm produced shucked oysters. The total value of the products produced by these firms amounted to $22,424.

Fishery products received at municipal fish wharf and market, Washington, D. C., 1936 [1]

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total
	Pounds	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
Alewives (river herring)	31, 250	14, 200	125, 500	214, 900	106, 500	3, 600	--------	--------	--------	--------	--------	--------	495, 950
Bluefish	15, 500	16, 200	11, 400	9, 500	8, 600	10, 500	8, 000	10, 400	20, 100	25, 800	24, 400	27, 800	188, 200
Butterfish	6, 000	3, 600	6, 100	14, 200	18, 100	51, 000	42, 700	39, 600	12, 600	9, 000	16, 200	8, 400	227, 500
Carp	12, 850	3, 800	37, 600	19, 300	20, 600	11, 000	5, 200	7, 100	16, 000	18, 250	11, 750	15, 100	178, 550
Catfish	1, 800	200	28, 500	18, 700	14, 300	11, 900	4, 300	5, 300	12, 600	23, 720	28, 650	20, 500	170, 470
Cod	1, 500	1, 700	1, 300	8, 300	4, 300	2, 000	1, 100	--------	100	1, 000	4, 000	800	26, 100
Croaker	137, 800	92, 600	246, 300	465, 100	391, 500	224, 000	210, 800	133, 700	193, 100	134, 200	102, 000	102, 200	2, 433, 300
Drum, red or redfish	2, 400	600	300	900	300	800	--------	--------	--------	--------	600	--------	5, 900
Eels	500	--------	1, 300	1, 100	900	200	100	100	900	3, 495	2, 975	1, 225	12, 795
Flounders	41, 810	32, 100	62, 800	18, 100	19, 600	15, 600	11, 000	10, 800	5, 275	10, 575	25, 900	22, 755	276, 315
Gizzard shad	29, 450	600	5, 000	2, 500	200	--------	--------	--------	2, 000	18, 800	27, 150	9, 600	95, 300
Haddock	25, 370	31, 650	39, 955	39, 235	34, 420	16, 555	17, 700	9, 180	17, 300	38, 470	25, 200	25, 750	320, 785
Hake	900	--------	100	1, 300	--------	--------	--------	--------	--------	--------	7, 200	400	9, 900
Halibut	5, 900	8, 100	7, 700	5, 500	6, 600	1, 900	2, 500	2, 400	1, 602	15, 200	11, 600	13, 200	82, 202
Hickory shad or "jacks"	1, 200	400	2, 300	2, 500	400	--------	--------	--------	--------	--------	--------	--------	6, 800
Kingfish or "king mackerel"	4, 600	3, 600	1, 000	3, 900	200	--------	--------	300	--------	600	1, 200	--------	15, 400
Mackerel	32, 100	26, 800	24, 800	26, 000	21, 700	21, 200	18, 800	8, 600	9, 002	20, 650	32, 400	37, 200	279, 252
Menhaden	--------	--------	--------	--------	--------	3, 000	5, 000	200	--------	--------	--------	--------	8, 200
Mullet	13, 700	12, 100	3, 300	--------	--------	--------	--------	--------	5, 300	26, 600	3, 600	13, 900	78, 500
Perch	10, 800	1, 000	63, 900	24, 300	7, 400	400	500	200	5, 800	10, 250	20, 020	17, 410	161, 980
Pike or pickerel	400	400	1, 200	200	--------	--------	--------	--------	400	1, 700	1, 050	2, 100	7, 450
Pollock	3, 700	19, 900	15, 400	--------	--------	--------	--------	--------	--------	3, 550	10, 475	14, 425	67, 450
Pompano	--------	--------	--------	--------	--------	--------	--------	--------	100	--------	--------	--------	100
Salmon	5, 000	4, 400	6, 500	1, 600	1, 000	1, 400	2, 900	2, 400	2, 100	9, 500	8, 900	9, 600	55, 300
Scup or porgy	34, 000	49, 500	37, 440	27, 800	19, 700	10, 500	20, 900	2, 400	2, 200	10, 400	--------	21, 200	236, 040
Sea bass	45, 700	16, 500	17, 500	8, 100	2, 400	17, 200	1, 400	1, 500	200	3, 000	4, 800	5, 600	123, 900
Shad	9, 400	4, 200	28, 600	110, 300	98, 800	2, 600	--------	--------	--------	--------	--------	--------	253, 900
Sharks	--------	--------	--------	--------	--------	--------	100	--------	--------	--------	--------	--------	100
Smelt	3, 300	4, 535	3, 750	1, 430	420	--------	--------	--------	--------	150	4, 165	4, 025	21, 775
Snapper, red	1, 600	1, 500	1, 000	100	400	500	300	300	500	550	1, 000	1, 300	9, 050
Spot	--------	--------	--------	--------	1, 200	3, 400	17, 000	13, 800	32, 600	143, 800	9, 400	--------	221, 200
Squeteagues or "sea trout"	84, 900	25, 900	30, 100	17, 200	192, 200	157, 600	111, 100	126, 500	178, 600	120, 200	103, 000	64, 000	1, 211, 300
Striped bass	24, 100	3, 600	29, 400	35, 200	30, 630	6, 500	2, 700	7, 500	21, 100	61, 800	80, 400	49, 450	352, 380
Sturgeon	75	--------	--------	--------	117	100	--------	--------	--------	--------	--------	--------	292
Swordfish	850	6, 950	7, 757	2, 540	814	390	350	710	605	2, 110	3, 180	2, 060	28, 316
Tilefish	400	--------	400	200	100	--------	--------	--------	--------	--------	--------	200	1, 300
Whitefish	200	400	100	200	100	200	100	--------	--------	100	--------	150	1, 550
Whiting	900	2, 400	400	100	--------	--------	--------	--------	--------	--------	26, 200	61, 200	91, 200

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[1] These statistics are reported to the Bureau by agents of the Health Department, District of Columbia.

Fishery products received at municipal fish wharf and market, Washington, D. C., 1936—Continued

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total
	Pounds	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
Crabs:													
Hard	-----	-----	-----	-----	800	10, 100	15, 900	31, 200	18, 400	2, 200	-----	-----	78, 600
Soft	-----	-----	-----	2, 025	5, 355	9, 225	6, 615	4, 095	2, 475	135	-----	-----	29, 925
Meat	5, 270	4, 490	8, 305	8, 485	13, 720	17, 585	18, 760	13, 170	12, 245	21, 250	12, 650	12, 900	148, 830
Sea crawfish or spiny lobster:													
Alive	-----	-----	-----	-----	-----	-----	-----	50	-----	-----	-----	-----	50
Meat	250	30	-----	50	-----	85	25	50	155	-----	-----	-----	645
Lobsters:													
Alive	452	503	500	231	930	680	225	225	975	2, 585	3, 000	2, 450	12, 756
Meat	175	167	592	560	100	93	-----	75	250	725	-----	-----	2, 737
Shrimp:													
Green	12, 125	23, 312	14, 125	14, 250	25, 125	48, 250	27, 875	14, 375	15, 625	46, 875	33, 000	26, 125	301, 062
Cooked	4, 785	3, 700	6, 250	2, 890	3, 215	2, 710	2, 005	975	3, 075	17, 375	13, 525	11, 500	72, 005
Squid	1, 400	100	100	400	-----	-----	400	300	-----	-----	-----	2, 400	5, 100
Clams, hard	3, 584	4, 384	4, 256	7, 136	4, 576	3, 392	3, 072	1, 888	4, 320	7, 296	6, 304	5, 632	[2] 55, 840
Oysters:													
In the shell (meat)	22, 799	6, 258	17, 885	6, 447	-----	-----	-----	-----	7, 840	74, 340	91, 091	69, 965	[3] 296, 625
Opened (meat)	87, 360	48, 659	43, 094	17, 019	-----	-----	-----	-----	15, 391	123, 795	109, 288	142, 188	[4] 586, 794
Scallops	4, 840	2, 008	832	1, 192	1, 520	1, 952	1, 288	1, 040	3, 280	12, 560	10, 440	6, 640	[5] 47, 592
Frogs	15	12	142	119	169	30	30	90	-----	-----	-----	-----	607
Terrapin	100	70	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	170
Turtles	-----	-----	-----	300	285	-----	20	-----	-----	-----	-----	-----	605
Total	733, 110	483, 128	944, 783	1, 141, 409	1, 059, 296	668, 147	560, 765	450, 523	624, 115	1, 022, 606	876, 713	831, 350	9, 395, 945

[2] 6,980 bushels. [3] 42,375 bushels. [4] 67,062 gallons. [5] 5,949 gallons.

NOTE.—Hard clams have been converted to pounds on the basis of 8 pounds of meats to the bushel, oysters on the basis of 7 pounds of meats to the bushel, and 8¾ pounds to the gallon, and scallops on the basis of 8 pounds of meats to the gallon.

FISHERIES OF THE SOUTH ATLANTIC AND GULF STATES

(South Atlantic, Area XXIV; Gulf, Area XXV)[8]

The yield of the commercial fisheries of the marine areas of the South Atlantic and Gulf States (North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and Texas) during 1936 amounted to 556,992,700 pounds, valued at $13,542,301 to the fishermen, representing an increase of 24 percent in volume and 36 percent in value as compared with the catch in 1934, the most recent year for which catch statistics are available. These fisheries gave employment to 29,006 fishermen as compared with 24,898 in 1934.

There were 703 fishery wholesale and manufacturing establishments in these States in 1936, as compared with 591 in 1934, when the most recent previous survey of these establishments was made. In 1936 these establishments employed 17,095 persons, paid $3,296,241 in salaries and wages and produced manufactured products (canned, cured, packaged, and byproducts), valued at $11,445,674. In 1934, the wholesale and manufacturing firms employed 14,354 persons, paid $2,873,812 in salaries and wages and produced manufactured products valued at $9,906,595.

Fisheries of the South Atlantic and Gulf States, 1936

SUMMARY OF CATCH

Product	North Carolina		South Carolina		Georgia		Florida		Alabama		Mississippi		Louisiana		Texas		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Fish	206, 022, 600	$2, 171, 067	2, 612, 000	$123, 334	15, 105, 500	$120, 163	146, 397, 600	$3, 265, 786	5, 391, 300	$214, 404	1, 317, 500	$61, 701	2, 275, 100	$125, 256	6, 322, 600	$362, 385	385, 444, 200	$6, 444, 096
Shellfish, etc	13, 856, 000	563, 702	5, 876, 300	220, 147	12, 246, 800	348, 616	27, 205, 300	1, 972, 620	3, 861, 500	141, 055	25, 277, 700	864, 444	72, 119, 700	2, 572, 743	11, 105, 200	414, 878	171, 548, 500	7, 098, 205
Total	219, 878, 600	2, 734, 769	8, 488, 300	343, 481	27, 352, 300	468, 779	173, 602, 900	5, 238, 406	9, 252, 800	355, 459	26, 595, 200	926, 145	74, 394, 800	2, 697, 999	17, 427, 800	777, 263	556, 992, 700	13, 542, 301

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[8] These are the numbers given to these areas by the North American Council on Fishery Investigations. The catch in the Mississippi River and tributaries is not included in this section. For a clearer understanding of the statistics published in this section, the reader is referred to the section in the latter part of this document entitled "Statistical survey procedure."

Fisheries of the South Atlantic and Gulf States, 1936—Continued

OPERATING UNITS: BY STATES

Item	North Carolina	South Carolina	Georgia	Florida	Alabama	Mississippi	Louisiana	Texas	Total
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	1, 175	36	164	1, 211	132	686	403	130	3, 937
On boats and shore:									
Regular	3, 845	753	712	5, 636	644	1, 209	4, 480	1, 103	18, 382
Casual	1, 882	806	456	2, 022	102	201	932	286	6, 687
Total	6, 902	1, 595	1, 332	8, 869	878	2, 096	5, 815	1, 519	29, 006
Vessels:									
Motor	180	10	55	259	38	195	173	41	951
Net tonnage	2, 191	130	508	4, 238	414	2, 397	1, 279	428	11, 585
Sail	67	-------	-------	-------	-------	12	-------	-------	79
Net tonnage	613	-------	-------	-------	-------	164	-------	-------	777
Total vessels	247	10	55	259	38	207	173	41	1, 030
Total net tonnage	2, 804	130	508	4, 238	414	2, 561	1, 279	428	12, 362
Boats:									
Motor	1, 362	55	137	2, 283	268	483	1, 970	501	7, 059
Other	2, 516	820	576	3, 538	281	503	1, 572	245	10, 051
Accessory boats	120	-------	4	22	-------	-------	24	-------	170
Apparatus:									
Purse seines:									
Menhaden	32	-------	2	10	-------	-------	-------	-------	44
Length, yards	8, 900	-------	600	2, 960	-------	-------	-------	-------	12, 460
Other	4	-------	-------	-------	-------	-------	-------	-------	4
Length, yards	800	-------	-------	-------	-------	-------	-------	-------	800
Haul seines:									
Common	603	46	11	296	6	9	107	8	1, 086
Length, yards	109, 321	7, 325	1, 132	157, 225	4, 500	2, 350	18, 510	850	301, 213
Long	72	-------	-------	-------	-------	-------	-------	-------	72
Length, yards	83, 200	-------	-------	-------	-------	-------	-------	-------	83, 200
Gill nets:									
Anchor	2, 369	247	25	20	-------	-------	-------	-------	2, 661
Square yards	1, 272, 930	161, 760	1, 875	34, 450	-------	-------	-------	-------	1, 471, 015
Drift	219	93	160	102	-------	-------	-------	-------	574
Square yards	153, 440	77, 800	99, 150	144, 600	-------	-------	-------	-------	474, 990
Runaround	813	67	35	2, 077	7	-------	1	89	3, 089
Square yards	477, 175	35, 200	16, 000	1, 917, 305	5, 400	-------	550	25, 350	2, 476, 980
Stake	7, 143	20	258	7	8	-------	-------	287	7, 723
Square yards	494, 555	18, 700	26, 650	5, 300	2, 000	-------	-------	81, 300	628, 505
Trammel nets	-------	-------	-------	434	131	44	46	98	753
Square yards	-------	-------	-------	294, 600	45, 200	8, 650	9, 355	53, 990	411, 795
Lines:									
Hand	70	204	348	2, 606	103	173	282	259	4, 045
Hooks and baits	140	319	348	3, 098	169	199	287	259	4, 819
Trawl	-------	-------	-------	2	-------	-------	-------	-------	2
Hooks	-------	-------	-------	180	-------	-------	-------	-------	180
Troll	-------	-------	-------	1, 207	-------	-------	-------	6	1, 213
Hooks	-------	-------	-------	1, 337	-------	-------	-------	6	1, 343
Trot with baits or snoods	831	194	181	228	95	172	921	38	2, 660
Baits or snoods	648, 000	97, 800	87, 000	98, 200	32, 950	68, 037	218, 825	11, 700	1, 262, 512
Trot with hooks	24	-------	2	334	84	-------	-------	124	568
Hooks	3, 300	-------	325	105, 725	25, 500	-------	-------	64, 200	199, 050
Pound nets	2, 434	-------	-------	23	-------	-------	-------	-------	2, 457
Wheels	13	-------	-------	-------	-------	-------	-------	-------	13
Fyke nets	670	-------	-------	10	12	-------	-------	-------	692
Dip nets:									
Common	425	-------	-------	113	-------	-------	51	23	612
Drop	-------	-------	-------	303	-------	75	8, 694	-------	9, 072
Cast nets	-------	28	-------	139	-------	81	67	-------	315
Otter trawls:									
Fish	6	-------	-------	-------	-------	-------	-------	-------	6
Yards at mouth	140	-------	-------	-------	-------	-------	-------	-------	140
Shrimp	214	28	177	325	157	563	1, 828	351	3, 643
Yards at mouth	3, 866	596	3, 860	6, 590	1, 898	7, 228	22, 533	5, 639	52, 210
Traps:									
Box	6	-------	-------	300	-------	-------	-------	-------	306
Brush	-------	-------	-------	-------	-------	-------	25, 500	-------	25, 500
Turtle	510	-------	-------	-------	-------	-------	-------	-------	510
Pots:									
Crab	-------	-------	436	4, 821	-------	-------	-------	68	5, 325
Eel	2, 132	-------	-------	73	-------	-------	-------	-------	2, 205
Fish	46	53	55	3, 490	65	-------	-------	-------	3, 709
Sea crawfish	-------	-------	-------	1, 140	-------	-------	-------	-------	1, 140
Spears	456	122	-------	122	49	68	-------	181	998

Fisheries of the South Atlantic and Gulf States, 1936—Continued

OPERATING UNITS: BY STATES—Continued

Item	North Carolina	South Carolina	Georgia	Florida	Alabama	Mississippi	Louisiana	Texas	Total
Apparatus—Continued									
Dredges:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Clam				1					1
Crab	20								20
Yards at mouth	20								20
Oyster	277	3		3	13	290	76	62	724
Yards at mouth	293	5		3	13	290	76	68	748
Scallop				74					74
Yards at mouth				82					82
Tongs, oyster	219	18	7	324	227	472	744	168	2,179
Rakes:									
Oyster	2			1					3
Other	1,119								1,119
Forks				11					11
Grabs		152	17	3					172
Coquina scoops				6					[illegible]
Hooks:									
Conch				2					2
Sponge				254					254
Stone crab	2								2
Diving outfits				59					59

CATCH: BY STATES

Species	North Carolina		South Carolina		Georgia	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	11,928,600	$129,675				
Bluefish	2,027,800	109,618	9,600	$885		
Bowfin	6,800	68				
Butterfish	358,400	5,528				
Carp	510,800	14,108				
Catfish and bullheads	470,800	9,446	121,200	4,381	37,200	$1,680
Croaker	9,743,100	104,726			5,000	200
Drum:						
Black			42,000	1,180	10,000	400
Red or redfish	251,100	7,403	104,400	5,604	50,000	2,550
Eels, common	64,000	3,426				
Flounders	1,175,200	66,920	64,500	5,150	8,500	475
Gizzard shad	42,500	425				
Grunts			8,000	500		
Harvest or "starfish"	893,100	11,300				
Hickory shad	221,000	6,604	800	10	20,900	418
King whiting or "kingfish"	1,216,000	31,493	117,000	5,750	75,500	1,340
Mackerel	1,000	10				
Menhaden	150,088,400	599,145			14,500,000	58,000
Mullet	6,470,900	222,291	747,300	30,519	17,000	850
Permit			8,000	400		
Pigfish	29,700	297				
Pike or pickerel	1,100	45				
Pinfish or sailors choice	30,000	50				
Pompano	17,200	2,045				
Sea bass	107,000	4,280	162,900	11,020		
Sea catfish			150,000	4,000		
Shad	1,095,300	176,627	177,100	28,076	236,000	42,212
Sharks	1,100	22	75,000	750		
Sheepshead, salt water	20,700	920	2,000	100	10,000	400
Spadefish	4,900	98				
Spanish mackerel	433,400	21,614				
Spot	7,443,200	166,683	662,700	13,739	10,000	400
Squeteagues or "sea trout":						
Gray	8,969,100	314,192	3,000	210		
Spotted	1,399,200	88,469	98,000	7,010	115,000	10,700
Striped bass	767,800	61,257				
Sturgeon	4,700	446	58,500	4,050	10,400	538
Suckers	6,500	277				
White perch	193,300	10,217				
Yellow perch	23,600	1,230				
Yellowtail	5,300	112				
Total	206,022,600	2,171,067	2,612,000	123,334	15,105,500	120,163

Fisheries of the South Atlantic and Gulf States, 1936—Continued

CATCH: BY STATES—Continued

Species	North Carolina		South Carolina		Georgia	
SHELLFISH, ETC.	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Crabs:						
Hard [1]	6, 375, 000	$132, 316	1, 626, 400	$17, 987	2, 182, 200	$33, 033
Soft and peelers	215, 900	60, 486	9, 200	550	-----	-----
Stone	800	100	-----	-----	-----	-----
Shrimp	3, 815, 000	119, 541	1, 100, 800	37, 024	9, 714, 800	291, 402
Clams, hard, public [2]	839, 500	75, 326	20, 200	1, 780	-----	-----
Oysters, market: [3]						
Public, spring	883, 700	51, 840	2, 500	243	-----	-----
Public, fall	1, 538, 800	102, 141	6, 700	576	-----	-----
Private, spring	19, 800	2, 300	2, 152, 400	112, 538	208, 200	13, 326
Private, fall	38, 200	4, 350	956, 300	49, 259	121, 900	7, 740
Scallops, bay	99, 200	14, 175	-----	-----	-----	-----
Terrapin, diamond back	-----	-----	1, 800	190	19, 700	3, 115
Turtles, snapper	30, 100	1, 127	-----	-----	-----	-----
Total	13, 856, 000	563, 702	5, 876, 300	220, 147	12, 246, 800	348, 616
Grand total	219, 878, 600	2, 734, 769	8, 488, 300	343, 481	27, 352, 300	468, 779

Speces	Florida		Alabama		Mississippi	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	231, 500	$1, 158	-----	-----	-----	-----
Amberjack	13, 400	365	-----	-----	-----	-----
Angelfish	1, 500	45	-----	-----	-----	-----
Bluefish	3, 784, 400	194, 456	72, 000	$3, 378	-----	-----
Blue runner or hardtail	598, 500	7, 577	16, 700	490	-----	-----
Buffalofish	-----	-----	43, 700	1, 748	-----	-----
Cabio or crab eater	5, 900	143	-----	-----	-----	-----
Catfish and bullheads	4, 348, 000	148, 286	101, 500	6, 090	-----	-----
Cigarfish	11, 000	255	-----	-----	-----	-----
Crappie	463, 000	15, 758	-----	-----	-----	-----
Crevalle	183, 200	3, 304	-----	-----	-----	-----
Croaker	40, 000	844	17, 500	350	11, 500	$345
Dolphin	5, 000	100	-----	-----	-----	-----
Drum:						
Black	196, 800	4, 622	1, 900	47	8, 300	249
Red or redfish	1, 160, 200	38, 012	33, 800	2, 284	87, 600	4, 355
Eels, common	19, 400	582	-----	-----	-----	-----
Flounders	354, 300	16, 599	36, 900	2, 882	30, 900	2, 462
Groupers	4, 862, 200	142, 793	196, 400	6, 728	150, 000	4, 500
Grunts	58, 700	1, 527	-----	-----	-----	-----
Hickory shad	42, 000	920	-----	-----	-----	-----
Hogfish	13, 000	390	-----	-----	-----	-----
Jewfish	38, 800	1, 075	-----	-----	-----	-----
Kingfish or "king mackerel"	3, 944, 100	161, 491	-----	-----	-----	-----
King whiting or "kingfish"	1, 856, 500	32, 439	1, 000	30	5, 100	153
Menhaden	68, 874, 800	269, 368	-----	-----	-----	-----
Mojarra	352, 100	8, 169	-----	-----	-----	-----
Moonfish	2, 500	75	-----	-----	-----	-----
Mullet	31, 361, 700	978, 282	3, 586, 000	111, 438	354, 500	10, 635
Muttonfish	165, 500	11, 530	-----	-----	-----	-----
Paddlefish or spoonbill cat	-----	-----	13, 700	822	-----	-----
Permit	16, 100	320	-----	-----	-----	-----
Pigfish	71, 200	1, 474	-----	-----	-----	-----
Pinfish or sailors choice	33, 100	592	-----	-----	-----	-----
Pompano	713, 700	149, 313	6, 600	1, 320	800	120
Porgies	36, 800	964	-----	-----	-----	-----
Sea bass	77, 400	3, 744	-----	-----	-----	-----
Sea catfish	97, 700	1, 954	8, 000	264	26, 100	522
Shad	282, 500	26, 798	-----	-----	-----	-----
Sharks	1, 037, 000	3, 270	-----	-----	-----	-----
Sheepshead:						
Fresh water	-----	-----	1, 400	84	-----	-----
Salt water	914, 700	22, 488	24, 300	1, 039	24, 400	982
Snapper:						
Mangrove	243, 200	9, 784	-----	-----	-----	-----
Red	4, 944, 300	308, 491	1, 027, 500	61, 650	324, 900	19, 494
Snook or sergeantfish	605, 300	23, 498	-----	-----	-----	-----
Spadefish	19, 700	705	-----	-----	-----	-----
Spanish mackerel	8, 935, 700	363, 868	72, 900	4, 725	-----	-----
Spot	208, 500	4, 335	800	16	-----	-----
Squeteagues or "sea trout":						
Spotted	4, 182, 100	269, 833	105, 800	8, 314	179, 600	14, 268
White	89, 100	3, 803	12, 300	369	113, 600	3, 608
Sturgeon	29, 500	3, 550	1, 600	112	-----	-----
Sunfish	677, 400	18, 911	-----	-----	-----	-----
Swellfish	800	40	-----	-----	-----	-----

See footnotes at end of table.

Fisheries of the South Atlantic and Gulf States, 1936—Continued

CATCH: BY STATES—Continued

Species	Florida		Alabama		Mississippi	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
FISH—continued						
Tenpounder	46,900	$1,070	9,000	$224		
Tripletail	37,300	560			200	$8
Yellowtail	109,600	6,256				
Total	146,397,600	3,265,786	5,391,300	214,404	1,317.500	61,701
SHELLFISH, ETC.						
Crabs:						
Hard [1]	3,149,000	49,636	997,200	14,352	2,011,000	30,476
Soft and peelers			600	200	2,700	518
Stone	44,800	8,770				
Sea crawfish or spiny lobster	326,600	20,090				
Shrimp	20,724,900	628,443	1,868,700	65,296	17,493,100	471,589
Clams:						
Coquina	4,300	720				
Hard, public [2]	634,200	41,180				
Conchs	7,800	624				
Oysters, market: [3]						
Public, spring	609,700	34,303	690,100	36,802	5,536,800	340,940
Public, fall	462,300	33,688	270,900	21,335	234,100	20,921
Private, spring	165,600	8,626	10,500	875		
Private, fall	135,500	5,151	20,300	1,875		
Scallops, bay	332,100	32,523				
Terrapin, diamond back			3,200	320		
Turtles:						
Green	18,700	2,175				
Soft shell	99,900	1,646				
Sponges:						
Grass	22,800	18,401				
Sheepswool	361,600	999,775				
Wire	8,400	6,582				
Yellow	97,100	80,287				
Total	27,205.300	1,972,620	3,861.500	141,055	25,277.700	864,444
Grand total	173,602,900	5,238,406	9,252,800	355,459	26,595,200	926,145

Species	Louisiana		Texas		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
FISH						
Alewives					12,160,100	$130,833
Amberjack					13,400	365
Angelfish					1,500	45
Bluefish					5,893,800	308,337
Blue runner or hardtail					615,200	8,067
Bowfin					6,800	68
Buffalofish			200	$8	43,900	1,756
Butterfish					358,400	5,528
Cabio or crab eater					5,900	143
Carp					510,800	14,108
Catfish and bullheads			53,200	5,132	5,131,900	175,015
Cigarfish					11,000	255
Crappie					463,000	15,758
Crevalle					183,200	3,304
Croaker	407,500	$11,702	52,400	1,518	10,277,000	119,685
Dolphin					5,000	100
Drum:						
Black	150,100	5,278	2,256,500	55,840	2,665,600	67,616
Red or redfish	346,900	19,211	955,600	69,067	2,989,600	148,486
Eels, common					83,400	4,008
Flounders	21,700	1,522	103,500	10,218	1,795,500	106,228
Gizzard shad					42,500	425
Groupers	4,000	160	34,100	1,507	5,246,700	155,688
Grunts					66,700	2,027
Harvest or "starfish"					893,100	11,300
Hickory shad					284,700	7,952
Hogfish					13,000	390
Jewfish	21,000	945	2,900	107	62,700	2,127
Kingfish or "king mackerel"			2,800	112	3,946,900	161,603
King whiting or "kingfish"	2,000	60	15,100	455	3,288,200	71,720
Mackerel					1,000	10
Menhaden					233,463,200	926,513
Mojarra					352,100	8,169
Moonfish					2,500	75
Mullet	5,400	107			42,542,800	1,354,122
Muttonfish					165,500	11,530
Paddlefish or spoonbill cat					13,700	822
Permit					24,100	720

See footnotes at end of table.

Fisheries of the South Atlantic and Gulf States, 1936—Continued

CATCH: BY STATES—Continued

Species	Louisiana		Texas		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
FISH—continued						
Pigfish					100,900	$1,771
Pike or pickerel					1,100	45
Pinfish or sailors choice					63,100	642
Pompano			100	$15	738,400	152,813
Porgies					36,800	964
Sea bass					347,300	19,044
Sea catfish	4,700	$141	3,100	143	289,600	7,024
Shad					1,790,900	273,713
Sharks					1,113,100	4,042
Sheepshead:						
Fresh water					1,400	84
Salt water	155,200	5,857	66,000	1,901	1,217,300	33,687
Snapper:						
Mangrove					243,200	9,784
Red	117,000	9,780	906,600	58,436	7,320,300	457,851
Snook or sergeantfish			7,000	560	612,300	24,058
Spadefish					24,600	803
Spanish mackerel			16,700	985	9,458,700	391,192
Spot	2,300	46	10,600	212	8,338,100	185,431
Squeteagues or "sea trout":						
Gray					8,972,100	314,402
Spotted	765,000	60,608	1,836,200	156,169	8,680,900	615,371
White	271,600	9,818			486,600	17,598
Striped bass					767,800	61,257
Sturgeon					104,700	8,696
Suckers					6,500	277
Sunfish					677,400	18,911
Swellfish					800	40
Tenpounder					55,900	1,294
Tripletail	700	21			38,200	589
White perch					193,300	10,217
Yellow perch					23,600	1,230
Yellowtail					114,900	6,368
Total	2,275,100	125,256	6,322,600	362,385	385,444,200	6,444,096
SHELLFISH, ETC.						
Crabs:						
Hard [1]	12,576,400	167,765	319,600	8,165	29,236,800	453,730
Soft and peelers	365,300	53,031			593,700	114,785
Stone					45,600	8,870
Sea crawfish or spiny lobster					326,600	20,090
Shrimp	53,429,800	1,836,168	9,962,500	328,603	118,109,600	3,778,066
Clams:						
Coquina					4,300	720
Hard, public [2]					1,493,900	118,286
Conchs					7,800	624
Oysters, market: [3]						
Public, spring	414,000	23,609	474,500	44,960	8,611,300	532,697
Public, fall	128,000	11,088	311,700	30,265	2,952,500	220,014
Private, spring	2,956,400	251,321	24,600	1,923	5,537,500	390,909
Private, fall	2,244,400	228,711	12,300	962	3,528,900	298,048
Scallops, bay					431,300	46,698
Terrapin, diamond back	5,400	1,050			30,100	4,675
Turtles:						
Green					18,700	2,175
Snapper					30,100	1,127
Soft shell					99,900	1,646
Sponges:						
Grass					22,800	18,401
Sheepswool					361,600	999,775
Wire					8,400	6,582
Yellow					97,100	80,287
Total	72,119,700	2,572,743	11,105,200	414,878	171,548,500	7,098,205
Grand total	74,394,800	2,697,999	17,427,800	777,263	556,992,700	13,542,301

[1] Statistics on hard crabs used in this table are based on yields of 6 pounds per dozen in North Carolina, South Carolina, and Georgia; 5.96 pounds in Florida; 5.81 pounds in Alabama; 5.50 pounds in Mississippi; 5.59 pounds in Louisiana; and 5.21 pounds in Texas.

[2] Statistics on hard clams used in this table are based on yields of 8 pounds of meats per bushel in all States.

[3] Statistics on market oysters used in this table are based on yields of 4.96 pounds of meats per bushel in North Carolina; 4.64, in South Carolina; 6.01, in Georgia; 4.18, in Florida; 4.11, in Alabama; 3.59, in Mississippi; 3.77, in Louisiana; and 4.92, in Texas.

NOTE.—The catch for Mississippi includes the following products taken by Mississippi craft in Louisiana waters: Shrimp, 15,748,300 pounds, valued at $423,899; oysters, market, spring, 4,009,200 pounds of meats, valued at $244,879; oysters, market, fall, 56,700 pounds, valued at $3,884. The seed oyster fishery was prosecuted in this section only in North Carolina where 55 regular and 45 casual fishermen using 37 motor boats and 37 dredges took 55,500 bushels of seed oysters, valued at $11,100, from public beds. Of these regular fishermen 33 are duplicated among those fishing for market oysters or other species. Similarly 14 motor boats are duplicated.

Fisheries of the South Atlantic and Gulf States, 1936—Continued

SUPPLEMENTARY TABLE SHOWING THE PRODUCTION OF CERTAIN SHELLFISH IN NUMBER AND BUSHELS

Product	North Carolina		South Carolina		Georgia	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
Crabs:						
Hard.......number..	12,750,000	$132,316	3,252,800	$17,987	4,364,400	$33,033
Soft and peelers.......do....	647,700	60,486	27,600	550	----------	----------
Clams, hard, public.......bushels..	104,938	75,326	2,525	1,780	----------	----------
Oysters, market:						
Public, spring.......do....	178,165	51,840	539	243	----------	----------
Public, fall.......do....	310,242	102,141	1,444	576	----------	----------
Private, spring.......do....	3,992	2,300	463,879	112,538	34,642	13,326
Private, fall.......do....	7,702	4,350	206,099	49,259	20,283	7,740
Scallops, bay.......do....	16,533	14,175	----------	----------	----------	----------

Product	Florida		Alabama		Mississippi	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
Crabs:						
Hard.......number..	6,340,152	$49,636	2,058,600	$14,352	4,384,582	$30,476
Soft and peelers.......do....	----------	----------	1,800	200	8,100	518
Clams, hard, public.......bushels..	79,275	41,180	----------	----------	----------	----------
Oysters, market:						
Public, spring.......do....	145,861	34,303	167,908	36,802	1,542,284	340,940
Public, fall.......do....	110,598	33,688	65,912	21,335	65,209	20,921
Private, spring.......do....	39,617	8,626	2,555	875	----------	----------
Private, fall.......do....	32,416	5,151	4,939	1,875	----------	----------
Scallops, bay.......do....	66,420	32,523	----------	----------	----------	----------

Product	Louisiana		Texas		Total	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
Crabs:						
Hard.......number..	27,015,848	$167,765	736,058	$8,165	60,902,440	$453,730
Soft and peelers.......do....	1,057,901	53,031	----------	----------	1,743,101	114,785
Clams, hard, public.......bushels..	----------	----------	----------	----------	186,738	118,286
Oysters, market:						
Public, spring.......do....	109,814	23,609	96,443	44,960	2,241,014	532,697
Public, fall.......do....	33,952	11,088	63,354	30,265	650,711	220,014
Private, spring.......do....	784,191	251,321	5,000	1,923	1,333,876	390,909
Private, fall.......do....	595,332	228,711	2,500	962	869,271	298,048
Scallops, bay.......do....	----------	----------	----------	----------	82,953	46,698

Industries related to the fisheries of the South Atlantic and Gulf States, 1936

OPERATING UNITS, SALARIES, AND WAGES

Item	North Carolina	South Carolina	Georgia	Florida	Alabama	Mississippi	Louisiana	Texas	Total
Transporting:									
Persons engaged:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels....	79	120	19	46	8	--------	67	--------	339
On boats......	59	7	25	86	--------	--------	118	--------	295
Total.......	138	127	44	132	8	--------	185	--------	634
Vessels:									
Motor..........	59	13	6	26	4	--------	33	--------	141
Net tonnage..	496	208	51	303	45	--------	263	--------	1,366
Sail..........	--------	34	--------	--------	--------	--------	--------	--------	34
Net tonnage..	--------	332	--------	--------	--------	--------	--------	--------	332
Total vessels.......	59	47	6	26	4	--------	33	--------	175
Total net tonnage...	496	540	51	303	45	--------	263	--------	1,698
Boats..........	54	7	23	86	--------	--------	61	--------	231
Wholesale and manufacturing:									
Establishments.......	140	25	26	291	22	38	116	45	703
Persons engaged:									
Proprietors.......	163	21	21	318	17	23	109	50	722
Salaried employees..........	55	19	32	191	21	66	135	38	557

See footnotes at end of table.

Industries related to the fisheries of the South Atlantic and Gulf States, 1936—Con.

OPERATING UNITS, SALARIES, AND WAGES—Continued

Item	North Carolina	South Carolina	Georgia	Florida	Alabama	Mississippi	Louisiana	Texas	Total
Wholesale and manufacturing—Continued.									
Persons engaged—Con.									
Wage earners:									
Average for season	*Number* 1,879	*Number* 858	*Number* 1,508	*Number* 2,375	*Number* 442	*Number* 2,205	*Number* 4,982	*Number* 1,567	*Numbe* 15,816
Average for year	494	252	418	1,051	161	778	1,257	290	4,701
Paid to salaried employees	$67,376	$39,825	$49,954	$286,872	$19,600	$82,276	$198,454	$46,068	$790,425
Paid to wage earners	$237,302	$108,862	$185,852	$651,930	$86,393	$348,079	$715,017	$172,381	$2,505,816
Total salaries and wages	$304,678	$148,687	$235,806	$938,802	$105,993	$430,355	$913,471	$218,449	$3,296,241
Fishermen manufacturing	806	15	45	244	130	28	9	39	1,316

PRODUCTS MANUFACTURED

Item	North Carolina		South Carolina		Georgia		Florida	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
By manufacturing establishments:								
Alewives:								
Corned ... pounds	6,055,000	$53,311	------	------	------	------	------	------
Smoked ... do	22,400	3,005	------	------	------	------	------	------
Roe, canned ... standard cases	8,762	58,628	------	------	------	------	------	------
Groupers:								
Fresh fillets ... pounds	------	------	------	------	------	------	32,900	$5,410
Fresh steaks ... do	------	------	------	------	------	------	359,804	56,120
Menhaden:								
Acid scrap ... tons	8,961	138,746	------	------	(1)	(1)	4,931	77,802
Dry scrap ... do	3,438	108,938	------	------	------	------	8,180	240,069
Meal ... do	2,366	82,223	------	------	------	------	(1)	(1)
Oil ... gallons	666,454	184,202	------	------	(1)	(1)	250,824	61,273
Mullet:								
Salted ... pounds	411,800	28,375	------	------	------	------	573,200	29,310
Roe, salted ... do	------	------	------	------	------	------	18,550	4,318
Spanish mackerel, salted ... do	------	------	------	------	------	------	97,000	4,920
Spot, salted ... do	66,000	4,355	------	------	------	------	------	------
Crab meat, packaged, fresh cooked ... pounds	431,713	162,117	(1)	(1)	285,150	$94,140	309,268	99,748
Shrimp:								
Cooked and peeled ... do	(1)	(1)	------	------	156,440	38,760	------	------
Canned ... standard cases	------	------	------	------	146,720	818,097	54,072	303.306
Oysters:								
Fresh-shucked ... gallons	130,945	117,026	53,091	$47,351	22,901	21,087	98,556	134,940
Canned ... standard cases	------	------	86,227	367,838	(1)	(1)	(1)	(1)
Shell products:								
Poultry feed ... tons	------	------	(1)	(1)	------	------	(1)	(1)
Lime ... do	(1)	(1)	(1)	(1)	------	------	(1)	(1)
Scallops, bay, fresh-shucked ... gallons	------	------	------	------	------	------	21,600	52,500
Unclassified products:								
Fillets and steaks, fresh ... pounds	(2)	(2)	------	------	------	------	[3] 131,412	[3] 35,520
Salted ... do	------	------	------	------	------	------	[4] 126,800	[4] 5,250
Canned ... standard cases	------	------	------	------	(2)	(2)	[5] 30,001	[5] 174,445
Miscellaneous	------	[6] 43,391	------	[7] 83,703	------	[8] 56,515	------	[9] 347,802
Total	------	984,317	------	498,892	------	1,028,599	------	1,632,733
By fishermen:								
Alewives:								
Corned ... pounds	868,500	12,195	------	------	------	------	------	------
Smoked ... do	1,400	91	------	------	------	------	------	------
Mullet:								
Salted ... do	523,500	30,835	15,000	1,800	------	------	405,000	17,350
Roe, salted ... do	------	------	------	------	------	------	5,300	1,335
Smoked ... do	------	------	------	------	------	------	15,500	2,735
Sailfish, smoked ... do	------	------	------	------	------	------	18,000	3,600
Shark products:								
Fins ... do	------	------	------	------	------	------	450	62
Oil ... gallons	------	------	------	------	------	------	450	110
Spot, salted ... pounds	243,000	8,500	10,000	600	------	------	------	------

See footnotes at end of table.

Industries related to the fisheries of the South Atlantic and Gulf States, 1936—Con.

PRODUCTS MANUFACTURED—Continued

Item	North Carolina		South Carolina		Georgia		Florida	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
By fishermen—Continued								
Crab meat packaged, fresh cooked...pounds							6,300	$2,275
Clams, hard, fresh shucked gallons							200	360
Oysters, fresh shucked...do	1,870	$1,870	1,074	$1,171	9,863	$7,911	3,055	4,610
Scallops, bay, fresh shucked gallons	11,700	18,170					8,867	6,558
Sturgeon, caviar, salted pounds			300	300	85	85		
Total		71,661		3,871		7,996		38,995
Grand total		1,055,978		502,763		1,036,595		1,671,728

Item	Alabama		Mississippi		Louisiana		Texas	
By manufacturing establishments:	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
Mullet, salted...pounds	(1)	(1)	(1)	(1)				
Crab meat, packaged, fresh cooked...pounds	132,800	$36,545	251,247	$76,700	1,035,299	$280,644	(1)	(1)
Shrimp:								
Frozen, packaged...do					1,889,300	253,592	1,832,800	$179,000
Cooked and peeled...do			387,200	127,665	121,814	37,500		
Canned...standard cases	(1)	(1)	218,195	1,058,572	423,222	2,120,856	53,815	274,282
Meal...tons					1,512	29,783		
Sun-dried...pounds					1,645,575	289,079		
Oysters:								
Fresh shucked...gallons	43,500	57,900	43,717	70,407	271,541	457,066	75,182	106,113
Canned...standard cases	24,740	93,400	222,532	920,898	57,567	218,992		
Shell products:								
Poultry feed...tons	(1)	(1)	17,060	67,279	(1)	(1)	(1)	(1)
Lime...do	(1)	(1)	2,220	1,933	(1)	(1)	(1)	(1)
Unclassified products:								
Fillets and steaks, fresh pounds	(2)	(2)						
Salted...do	(2)	(2)	(2)	(2)				
Canned...standard cases	(2)	(2)	(2)	(2)	(2)	(2)		
Miscellaneous		[10]114,985		[11]2,825		[12]313,258		[13]111,859
Total		302,830		2,326,279		4,000,770		671,254
By fishermen:								
Mullet, salted...pounds	20,000	1,000						
Crab meat packaged, fresh cooked...pounds	30,000	4,800	800	224			7,500	1,900
Shrimp, sun-dried...do					12,400	2,442		
Oysters, fresh shucked gallons	7,000	7,000	1,650	2,325			1,522	1,570
Total		12,800		2,549		2,442		3,470
Grand total		315,630		2,328,828		4,003,212		674,724

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[1] This item has been included under "Unclassified products."

[2] This item has been included under "Miscellaneous."

[3] Includes fresh fillets of amberjack, black and red drum, jewfish, king mackerel, mullet, mangrove and red snapper, snook, Spanish mackerel, gray squeteague, and tripletail; and fresh steaks of cabio, red snapper, and snook.

[4] Includes salted bluefish, blue runner, tenpounder, and Spanish mackerel fillets.

[5] Includes canned hard-clam products, coquina clam broth, oysters, turtle products, and frog products.

[6] Includes fresh fillets of bluefish, croaker, red drum, flounders, king whiting, sea bass, Spanish mackerel, spot, and gray squeteague; smoked red drum and mullet; cooked and peeled shrimp; fresh-shucked hard clams; and oyster-shell lime.

[7] Includes packaged fresh-cooked crab meat, and oyster-shell poultry feed and lime.

[8] Includes pickled shrimp; canned oysters and terrapin products; and menhaden acid scrap and oil.

[9] Includes menhaden meal; shark skins, fins and oil; packaged fresh-cooked sea crawfish meat; oyster-shell poultry feed and lime; and marine-shell novelties.

[10] Includes fresh fillets of Spanish mackerel; fresh steaks of sea bass, and red snapper; frozen fillets of gray squeteague; salted mullet; canned shrimp; and oyster-shell poultry feed and lime.

[11] Includes salted mullet, canned crab and shrimp gumbo, and canned shrimp soup.

[12] Includes canned fish bouillon, fresh-water crawfish, terrapin meat, turtle soup, and frog products; and oyster-shell poultry feed and lime.

[13] Includes packaged fresh-cooked crab meat and oyster-shell poultry feed and lime.

NOTE.—The total value of manufactured products in the South Atlantic and Gulf States was as follows: By manufacturing establishments, $11,445,674; and by fishermen, $143,784. Some of the above products may have been manufactured from products imported from another State or a foreign country; therefore, they cannot be correlated directly with the catch within the State. Of the total number of persons engaged in preparation of fishermen's manufactured products, 1,132 have also been included as fishermen and 415 of the persons shown on transporting craft have also been included as fishermen. This should be considered when computing the total number of persons in the fishery industries exclusive of duplication.

NORTH CAROLINA

Fisheries of North Carolina, 1936

OPERATING UNITS: BY GEAR

Item	Purse seines		Haul seines		Gill nets			
	Menhaden	Other	Common	Long	Anchor	Drift	Runaround	Stake
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	526	--------	55	159	193	--------	119	--------
On boats and shore:								
Regular	--------	28	1,967	228	418	36	819	376
Casual	--------	--------	272	--------	224	273	199	61
Total	526	28	2,294	387	835	309	1,137	437
Vessels, motor	32	--------	12	51	66	--------	41	--------
Net tonnage	1,194	--------	71	346	394	--------	230	--------
Boats:								
Motor	--------	7	187	93	229	20	162	206
Other	--------	5	550	76	114	199	671	123
Accessory boats	64	--------	7	49	--------	--------	--------	--------
Apparatus:								
Number	32	4	603	72	2,369	219	813	7,143
Length, yards	8,900	800	109,321	83,200	--------	--------	--------	--------
Square yards	--------	--------	--------	--------	1,272,930	153,440	477,175	494,555

Item	Lines			Pound nets	Wheels	Fyke nets	Dip nets	Otter trawls	
	Hand	Trot with baits or snoods	Trot with hooks					Fish	Shrimp
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	10	2	--------	--------	--------	--------	--------	20	187
On boats and shore:									
Regular	25	1,080	--------	474	--------	24	371	--------	292
Casual	--------	148	45	243	12	22	99	--------	--------
Total	35	1,230	45	717	12	46	470	20	479
Vessels, motor	4	1	--------	--------	--------	--------	--------	6	68
Net tonnage	30	11	--------	--------	--------	--------	--------	131	458
Boats:									
Motor	9	287	6	369	1	26	5	--------	146
Other	--------	543	18	205	6	6	293	--------	--------
Apparatus:									
Number	70	831	24	2,434	13	670	425	6	214
Yards at mouth	--------	--------	--------	--------	--------	--------	--------	140	3,866
Hooks, baits, or snoods	140	648,000	3,300	--------	--------	--------	--------	--------	--------

Item	Traps		Pots		Spears	Dredges	
	Box	Turtle	Eel	Fish		Crab	Oyster
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	--------	--------	--------	--------	--------	--------	200
On boats and shore:							
Regular	--------	26	19	--------	363	18	166
Casual	3	--------	41	14	93	--------	--------
Total	3	26	60	14	456	18	366
Vessels, sail	--------	--------	--------	--------	--------	--------	67
Net tonnage	--------	--------	--------	--------	--------	--------	613
Boats:							
Motor	--------	10	22	--------	10	10	98
Other	3	13	27	14	387	--------	10
Apparatus:							
Number	6	510	2,132	46	456	20	277
Yards at mouth	--------	--------	--------	--------	--------	20	293

Fisheries of North Carolina, 1936—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Tongs, oyster	Rakes		Hooks, stone crab	By hand		Total, exclusive of duplication
		Oyster	Other		Oyster	Other	
	Number	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Fishermen:							
On vessels	3	2					1,175
On boats and shore:							
Regular	208		750	2	93	55	3,845
Casual	11		369			30	1,882
Total	222	2	1,119	2	93	85	6,902
Vessels:							
Motor	2	1					180
Net tonnage	12	11					2,191
Sail							67
Net tonnage							613
Total vessels	2	1					247
Total net tonnage	12	11					2,804
Boats:							
Motor	24		19		11		1,362
Other	186		598	2	62	55	2,516
Accessory boats							120
Apparatus, number	219	2	1,119	2			

CATCH: BY GEAR

Species	Purse seines				Haul seines			
	Menhaden		Other		Common		Long	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives					991,700	$11,708	8,500	$111
Bluefish	19,000	$1,130			612,000	28,957	196,300	13,755
Bowfin					4,100	41		
Butterfish					7,800	156		
Carp					262,800	6,088	400	8
Catfish and bullheads					57,200	1,163	600	12
Croaker					388,000	4,145	5,496,400	54,964
Drum, red or redfish					112,100	3,403	28,400	852
Flounders					32,000	1,700	19,000	950
Gizzard shad					28,100	281		
Harvestfish or "starfish"					34,200	352	39,300	562
Hickory shad					31,200	686		
King whiting or "kingfish"					74,500	1,834	21,500	418
Mackerel					1,000	10		
Menhaden	149,813,400	598,680			200,000	340	75,000	125
Mullet			5,000	$150	3,887,400	131,950	18,400	552
Pigfish					4,000	40	9,200	92
Pike or pickerel					800	30		
Pinfish or sailors choice							30,000	50
Pompano					14,000	1,725	3,200	320
Shad					98,800	15,852	8,400	1,354
Sharks							1,100	22
Sheepshead					14,600	615	4,100	205
Spadefish					3,500	70		
Spanish mackerel					10,800	648		
Spot					4,187,800	94,070	1,004,600	17,002
Squeteagues or "sea trout":								
Gray					314,800	13,012	1,877,400	57,365
Spotted					509,400	34,945	676,600	39,124
Striped bass			100,000	5,000	93,500	8,318	44,600	3,614
Sturgeon							300	28
White perch					63,300	3,230	500	25
Yellow perch					14,100	705		
Yellowtail					100	2		
Crabs, soft and peelers					162,900	46,468		
Shrimp					115,200	8,776		
Total	149,832,400	599,810	105,000	5,150	12,331,700	421,320	9,563,800	191,510

Fisheries of North Carolina, 1936—Continued

CATCH: BY GEAR—Continued

Species	Gill nets							
	Anchor		Drift		Runaround		Stake	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	441, 600	$5, 050	79, 500	$1, 175	2, 000	$35	164, 800	$2, 577
Bluefish					771, 500	38, 555	280, 100	17, 364
Bowfin	700	7					100	1
Carp	21, 300	426	300	9	3, 000	90	12, 200	344
Catfish and bullheads	36, 000	720	4, 800	96	1, 000	20	6, 700	134
Croaker	1, 435, 300	14, 523			51, 000	1, 015	335, 800	4, 498
Drum, red or redfish	1, 500	45			55, 000	1, 480	1, 000	30
Flounders	1, 100	55			36, 000	2, 450	15, 000	1, 100
Gizzard shad	4, 300	43					100	1
Hickory shad	30, 300	1, 106	7, 800	235			16, 800	424
King whiting or "kingfish"	679, 300	18, 504			2, 400	57		
Mullet	17, 300	533			2, 422, 800	85, 421	107, 900	3, 280
Pigfish							700	7
Shad	203, 200	32, 191	97, 200	16, 390			109, 700	17, 713
Spanish mackerel					300, 000	13, 500	70, 600	4, 526
Spot	160, 000	4, 000			1, 840, 000	47, 110	116, 100	2, 077
Squeteagues or "sea trout":								
Gray	2, 394, 500	96, 894			5, 000	200	124, 500	5, 095
Spotted	56, 800	3, 860			97, 000	6, 850	16, 000	1, 120
Striped bass	103, 200	9, 437	1, 500	145			89, 300	8, 187
Sturgeon	2, 100	209					100	9
Suckers	800	16					800	16
White perch	11, 800	617	3, 300	168			38, 600	1, 930
Yellow perch	700	35					200	10
Yellowtail	100	5						
Crabs, hard							4, 500	100
Total	5, 601, 900	188, 276	194, 400	18, 218	5, 586, 700	196, 783	1, 511, 600	70, 543

Species	Lines						Pound nets		Wheels	
	Hand		Trot with baits or snoods		Trot with hooks					
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives							9, 963, 100	$104, 003	68, 500	$1, 250
Bluefish	2, 000	$120					146, 900	9, 737		
Bowfin							1, 500	15		
Butterfish							350, 600	5, 372		
Carp					500	$25	100, 500	2, 199		
Catfish and bullheads					38, 000	810	242, 300	4, 757	1, 000	20
Croaker							1, 864, 600	21, 281		
Drum, red or redfish							53, 100	1, 593		
Eels, common							5, 700	143		
Flounders							185, 700	8, 335		
Gizzard shad							8, 500	85		
Harvestfish or "starfish"							819, 600	10, 386		
Hickory shad							134, 000	4, 126		
Mullet							12, 000	400		
Pigfish							15, 800	158		
Sea bass	107, 000	4, 280								
Shad							578, 000	93, 127		
Sheepshead							2, 000	100		
Spadefish							1, 400	28		
Spanish mackerel							52, 000	2, 940		
Spot							134, 700	2, 424		
Squeteagues or "sea trout":										
Gray							4, 220, 400	140, 490		
Spotted							43, 400	2, 570		
Striped bass					4, 600	595	319, 800	25, 001		
Sturgeon							2, 200	200		
Suckers							3, 800	190		
White perch							24, 600	1, 607	1, 000	60
Yellow perch							1, 500	125		
Yellowtail							5, 000	100		
Crabs, hard			5, 770, 500	$118, 716						
Shrimp							52, 100	3, 109		
Total	109, 000	4, 400	5, 770, 500	118, 716	43, 100	1, 430	19, 344, 800	444, 601	70, 500	1, 330

Fisheries of North Carolina, 1936—Continued

CATCH: BY GEAR—Continued

Species	Fyke nets		Dip nets		Otter trawls		Traps	
							Box	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	129,300	$1,931	79,600	$1,835				
Bowfin	400	4						
Carp	109,500	4,910					300	$9
Catfish and bullheads	81,700	1,664					1,500	50
Croaker					172,000	$4,300		
Eels, common	900	25						
Flounders	1,200	60			623,200	35,550		
Gizzard shad	1,500	15						
Hickory shad	900	27						
King whiting or "kingfish"					438,300	10,680		
Mullet	100	5						
Pike or pickerel	300	15						
Squeteagues or "sea trout," gray					32,500	1,136		
Striped bass	11,300	960						
Suckers	1,100	55						
White perch	21,600	1,080					600	60
Yellow perch	7,100	355						
Yellowtail	100	5						
Crabs:								
Hard					345,000	8,400		
Soft and peelers			53,000	14,018				
Shrimp					3,647,700	107,656		
Turtles, snapper	600	24						
Total	367,600	11,135	132,600	15,853	5,258,700	167,722	2,400	119

Species	Traps—Contd.		Pots		Spears		Dredges	
	Turtle							
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Eels, common			57,400	$3,258				
Flounders					262,000	$16,720		
White perch			28,000	1,440				
Crabs, hard							255,000	$5,100
Oysters, market:								
Public, spring							705,200	40,018
Public, fall							1,243,500	81,721
Turtles, snapper	29,500	$1,103						
Total	29,500	1,103	85,400	4,698	262,000	16,720	2,203,700	126,839

Species	Tongs		Rakes		Hooks		By hand	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Crabs, stone					800	$100		
Clams, hard, public	40,500	$4,690	766,000	$67,696			33,000	$2,940
Oysters, market:								
Public, spring	110,100	7,437					68,400	4,385
Public, fall	187,300	13,100					108,000	7,320
Private, spring	19,800	2,300						
Private, fall	38,200	4,350						
Scallops, bay			99,200	14,175				
Total	395,900	31,877	865,200	81,871	800	100	209,400	14,645

Fisheries of North Carolina, 1936—Continued

OPERATING UNITS: BY COUNTIES

Item	Beaufort	Bertie	Bladen	Brunswick	Camden	Carteret	Chowan	Craven
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	122	--------	--------	110	--------	781	--------	--------
On boats and shore:								
Regular	136	--------	--------	428	--------	1,316	--------	40
Casual	112	66	100	99	17	424	169	8
Total	370	66	100	637	17	2,521	169	48
Vessels:								
Motor	2	--------	--------	22	--------	123	--------	--------
Net tonnage	18	--------	--------	268	--------	1,681	--------	--------
Sail	39	--------	--------	--------	--------	8	--------	--------
Net tonnage	354	--------	--------	--------	--------	89	--------	--------
Total vessels	41	--------	--------	22	--------	131	--------	--------
Total net tonnage	372	--------	--------	268	--------	1,770	--------	--------
Boats:								
Motor	48	17	--------	69	3	328	70	23
Other	110	7	100	258	12	857	10	15
Accessory boats	2	--------	--------	6	--------	96	--------	--------
Apparatus:								
Purse seines, menhaden	--------	--------	--------	3	--------	29	--------	--------
Length, yards	--------	--------	--------	900	--------	8,000	--------	--------
Haul seines:								
Common	5	2	--------	21	--------	380	1	4
Length, yards	3,000	2,000	--------	4,320	--------	37,588	375	1,000
Long	2	--------	--------	--------	--------	28	--------	--------
Length, yards	2,400	--------	--------	--------	--------	31,600	--------	--------
Gill nets:								
Anchor	--------	--------	--------	35	42	125	217	--------
Square yards	--------	--------	--------	17,200	4,200	303,500	86,600	--------
Drift	--------	--------	100	12	--------	--------	--------	--------
Square yards	--------	--------	15,000	4,800	--------	--------	--------	--------
Runaround	49	--------	--------	187	--------	146	--------	6
Square yards	19,000	--------	--------	36,200	--------	178,600	--------	5,400
Stake	317	--------	--------	2	90	1,810	--------	600
Square yards	11,355	--------	--------	400	4,510	72,790	--------	28,800
Lines:								
Hand	--------	--------	--------	--------	--------	12	--------	--------
Hooks and baits	--------	--------	--------	--------	--------	24	--------	--------
Trot with baits or snoods	100	--------	--------	43	--------	217	--------	15
Baits or snoods	84,600	--------	--------	9,900	--------	195,400	--------	7,500
Pound nets	65	128	--------	--------	--------	139	661	--------
Fyke nets	--------	--------	--------	--------	32	--------	--------	--------
Dip nets	--------	--------	--------	--------	--------	376	--------	--------
Otter trawls:								
Fish	--------	--------	--------	--------	--------	5	--------	--------
Yards at mouth	--------	--------	--------	--------	--------	120	--------	--------
Shrimp	--------	--------	--------	57	--------	147	--------	--------
Yards at mouth	--------	--------	--------	1,110	--------	2,551	--------	--------
Pots, eel	25	--------	--------	--------	--------	--------	--------	--------
Spears	--------	--------	--------	220	--------	50	--------	--------
Dredges, oyster	91	--------	--------	--------	--------	16	--------	--------
Yards at mouth	118	--------	--------	--------	--------	18	--------	--------
Tongs, oyster	--------	--------	--------	--------	--------	64	--------	--------
Rakes:								
Oyster	--------	--------	--------	--------	--------	2	--------	--------
Other	--------	--------	--------	60	--------	1,039	--------	--------
Hooks, stone crab	--------	--------	--------	2	--------	--------	--------	--------

Fisheries of North Carolina, 1936—Continued

OPERATING UNITS: BY COUNTIES—Continued

Item	Currituck	Dare	Gates	Hertford	Hyde	Martin	New Hanover
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	--------	39	--------	--------	17	--------	11
On boats and shore:							
Regular	99	733	--------	--------	188	--------	151
Casual	82	2	10	40	--------	134	259
Total	181	774	10	40	205	134	421
Vessels:							
Motor	--------	12	--------	--------	2	--------	4
Net tonnage	--------	67	--------	--------	13	--------	37
Sail	--------	--------	--------	--------	4	--------	--------
Net tonnage	--------	--------	--------	--------	30	--------	--------
Total vessels	--------	12	--------	--------	6	--------	4
Total net tonnage	--------	67	--------	--------	43	--------	37
Boats:							
Motor	77	333	1	3	70	9	34
Other	72	252	9	13	83	54	220
Accessory boats	--------	4	--------	--------	--------	--------	--------
Apparatus:							
Purse seines, other than for menhaden	--------	4	--------	--------	--------	--------	--------
Length, yards	--------	800	--------	--------	--------	--------	--------
Haul seines:							
Common	45	59	--------	3	6	2	23
Length, yards	18, 130	27, 550	--------	525	1, 575	700	2, 610
Long	--------	21	--------	--------	--------	--------	--------
Length, yards	--------	24, 100	--------	--------	--------	--------	--------
Gill nets:							
Anchor	178	569	--------	--------	4	--------	8
Square yards	63, 375	199, 130	--------	--------	16, 000	--------	--------
Drift	--------	--------	6	2	--------	9	78
Square yards	--------	--------	1, 200	280	--------	11, 800	117, 000
Runaround	--------	64	--------	--------	26	--------	135
Square yards	--------	155, 850	--------	--------	20, 800	--------	23, 350
Stake	48	2, 758	--------	--------	585	--------	80
Square yards	6, 000	212, 000	--------	--------	57, 700	--------	6, 000
Lines:							
Trot with baits or snoods	13	45	--------	--------	40	--------	97
Baits or snoods	10, 000	48, 600	--------	--------	30, 000	--------	55, 000
Trot with hooks	--------	--------	--------	--------	--------	18	6
Hooks	--------	--------	--------	--------	--------	900	2, 400
Pound nets	13	960	12	32	89	--------	--------
Wheels	--------	--------	--------	--------	--------	13	--------
Fyke nets	302	--------	--------	--------	--------	--------	--------
Dip nets	10	--------	--------	--------	--------	35	--------
Otter trawls, shrimp	--------	--------	--------	--------	--------	--------	4
Yards at mouth	--------	--------	--------	--------	--------	--------	95
Traps:							
Box	--------	--------	--------	--------	--------	6	--------
Turtle	120	390	--------	--------	--------	--------	--------
Pots:							
Eel	1, 785	225	--------	--------	--------	--------	--------
Fish	--------	--------	--------	--------	--------	46	--------
Spears	--------	40	--------	--------	10	--------	61
Dredges:							
Crab	--------	20	--------	--------	--------	--------	--------
Yards at mouth	--------	20	--------	--------	--------	--------	--------
Oyster	--------	--------	--------	--------	33	--------	--------
Yards at mouth	--------	--------	--------	--------	45	--------	--------
Tongs, oyster	--------	--------	--------	--------	2	--------	15
Rakes, other than for oysters	--------	--------	--------	--------	20	--------	--------

Fisheries of North Carolina, 1936—Continued

OPERATING UNITS: BY COUNTIES—Continued

Item	Onslow	Pamlico	Pasquotank	Pender	Perquimans	Tyrrell	Washington
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	8	84	3	--------	--------	--------	--------
On boats and shore:							
Regular	282	262	--------	176	--------	34	--------
Casual	19	36	48	11	77	74	95
Total	309	382	51	187	77	108	95
Vessels:							
Motor	2	12	1	--------	--------	--------	--------
Net tonnage	12	78	17	--------	--------	--------	--------
Sail	--------	16	--------	--------	--------	--------	--------
Net tonnage	--------	140	--------	--------	--------	--------	--------
Total vessels	2	28	1	--------	--------	--------	--------
Total net tonnage	12	218	17	--------	--------	--------	--------
Boats:							
Motor	40	133	21	--------	18	45	20
Other	193	75	1	64	30	47	34
Accessory boats	--------	12	--------	--------	--------	--------	--------
Apparatus:							
Haul seines:							
Common	25	3	1	18	3	--------	2
Length, yards	3, 500	600	300	3, 548	600	--------	1, 400
Long	--------	21	--------	--------	--------	--------	--------
Length, yards	--------	25, 100	--------	--------	--------	--------	--------
Gill nets:							
Anchor	8	--------	218	--------	534	147	292
Square yards	2, 000	--------	54, 625	--------	292, 000	88, 300	146, 000
Drift	--------	--------	--------	--------	--------	--------	12
Square yards	--------	--------	--------	--------	--------	--------	3, 360
Runaround	141	35	1	23	--------	--------	--------
Square yards	25, 900	8, 800	375	2. 900	--------	--------	--------
Stake	--------	375	--------	--------	28	450	--------
Square yards	--------	24, 400	--------	--------	2, 800	67, 800	--------
Lines:							
Hand	58	--------	--------	--------	--------	--------	--------
Hooks and baits	116	--------	--------	--------	--------	--------	--------
Trot with baits or snoods	135	102	--------	24	--------	--------	--------
Baits or snoods	105, 000	90, 500	--------	11, 500	--------	--------	--------
Pound nets	--------	100	12	--------	78	77	68
Fyke nets	--------	--------	54	--------	12	270	--------
Dip nets	--------	--------	--------	--------	--------	--------	4
Otter trawls:							
Fish	--------	--------	1	--------	--------	--------	--------
Yards at mouth	--------	--------	20	--------	--------	--------	--------
Shrimp	1	5	--------	--------	--------	--------	--------
Yards at mouth	20	90	--------	--------	--------	--------	--------
Pots, eel	--------	--------	19	--------	66	--------	12
Spears	25	--------	--------	50	--------	--------	--------
Dredges, oyster	--------	137	--------	--------	--------	--------	--------
Yards at mouth	--------	112	--------	--------	--------	--------	--------
Tongs, oyster	125	13	--------	--------	--------	--------	--------

CATCH: BY COUNTIES

Species	Beaufort		Bertie		Bladen	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	37, 000	$555	1, 392, 000	$13, 920	--------	--------
Carp	45, 500	1, 365	--------	--------	--------	--------
Catfish and bullheads	11, 000	220	29, 300	622	--------	--------
Croaker	575, 000	5, 825	--------	--------	--------	--------
Eels, common	2, 500	75	--------	--------	--------	--------
Flounders	4, 500	270	--------	--------	--------	--------
Harvestfish or "starfish"	29, 000	570	--------	--------	--------	--------
Hickory shad	5, 000	150	--------	--------	7, 500	$225
Mullet	136, 000	4, 240	--------	--------	--------	--------
Shad	26, 500	4, 240	15, 600	2, 190	11, 000	2, 575
Spanish mackerel	1, 000	70	--------	--------	--------	--------
Spot	81, 000	820	--------	--------	--------	--------
Squeteagues or "sea trout":						
Gray	142, 000	4, 520	--------	--------	--------	--------
Spotted	90, 500	4, 735	--------	--------	--------	--------
Striped bass	8, 700	783	13, 700	1, 255	--------	--------
White perch	7, 500	375	6, 200	510	--------	--------
Yellow perch	1, 000	50	--------	--------	--------	--------
Crabs, hard	935, 200	20, 160	--------	--------	--------	--------
Oysters, market:						
Public, spring	281, 400	15, 856	--------	--------	--------	--------
Public, fall	496, 800	37, 024	--------	--------	--------	--------
Total	2, 917, 100	101, 903	1, 456, 800	18, 497	18, 500	2, 800

Fisheries of North Carolina, 1936—Continued

CATCH: BY COUNTIES—Continued

Species	Brunswick		Camden		Carteret	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	-	-	7,400	$109	4,000	$80
Bluefish	15,000	$930	-	-	1,076,400	47,351
Bowfin	-	-	200	2	-	-
Butterfish	-	-	-	-	330,000	4,960
Carp	-	-	6,400	188	-	-
Catfish and bullheads	-	-	5,300	106	-	-
Croaker	28,000	640	-	-	3,023.400	32,964
Drum, red or redfish	20,000	600	-	-	77,000	2,400
Flounders	219,200	14,430	-	-	639,200	34,700
Gizzard shad	-	-	100	1	-	-
Harvestfish or "starfish"	-	-	-	-	227,400	3,448
Hickory shad	-	-	2,000	60	85,000	2,410
King whiting or "kingfish"	246,300	4,935	-	-	672,100	15,953
Menhaden	19,091.000	75,500	-	-	130,997,400	523,645
Mullet	1,378,500	48,222	7,100	250	2,858,300	97,191
Pinfish or sailors choice	-	-	-	-	30,000	50
Pompano	-	-	-	-	13,000	1,625
Sea bass	-	-	-	-	59,000	2,360
Shad	35,000	5,600	800	132	38,700	7,623
Sheepshead	-	-	-	-	14,500	610
Spanish mackerel	-	-	-	-	356,600	16,966
Spot	2,405,300	60,210	-	-	2,429.100	44,482
Squeteagues or "sea trout":						
Gray	-	-	-	-	3,030,700	112,144
Spotted	35,000	2,450	-	-	501,200	33,910
Striped bass	-	-	7,300	660	500	50
Suckers	-	-	1.600	32	-	-
White perch	-	-	3,700	185	-	-
Yellow perch	-	-	1,600	80	-	-
Crabs:						
Hard	135,000	2,700	-	-	1,788,000	37,635
Soft and peelers	-	-	-	-	207.400	58,090
Stone	800	100	-	-	-	-
Shrimp	1,684,700	50,541	-	-	1,892,000	54,685
Clams, hard, public	57,500	6.430	-	-	758,000	66,796
Oysters, market:						
Public, spring	-	-	-	-	159,100	11,531
Public, fall	3,200	420	-	-	322,700	16,141
Scallops, bay	-	-	-	-	99,200	14,175
Turtles, snapper	-	-	100	4	-	-
Total	25,354,500	273,708	43,600	1,809	151,689,900	1,243,975

Species	Chowan		Craven		Currituck		Dare	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	7,885,800	$78,858	4,200	$63	18,300	$259	67,500	$1,021
Bluefish	-	-	-	-	2,000	180	799,900	53,317
Bowfin	-	-	-	-	4,600	46	-	-
Butterfish	-	-	-	-	-	-	23,400	468
Carp	2,800	70	2,800	28	257,500	6,565	90,500	2,101
Catfish and bullheads	95,700	1,915	2,200	22	45,700	944	23,300	466
Croaker	-	-	203,000	3,045	3,000	30	2,560.900	25,659
Drum, red or redfish	-	-	-	-	-	-	126,600	3,798
Eels, common	-	-	-	-	42,900	2,618	11,500	562
Flounders	-	-	-	-	3,000	150	139,500	7,375
Gizzard shad	900	9	-	-	30,500	305	-	-
Harvestfish or "starfish"	-	-	-	-	1,000	20	303,100	3,331
Hickory shad	5,000	350	8,000	160	200	6	63,400	1,898
King whiting or "kingfish"	-	-	-	-	4,200	105	53,500	1,210
Mackerel	-	-	-	-	-	-	1,000	10
Mullet	-	-	51,800	2,330	2,000	60	188,700	5,691
Pigfish	-	-	-	-	-	-	29,700	297
Pike or pickerel	-	-	-	-	500	15	-	-
Pompano	-	-	-	-	-	-	2,600	260
Shad	26,800	4,140	1,200	240	42,000	6,720	587,600	94,016
Sharks	-	-	-	-	-	-	1,100	22
Sheepshead	-	-	-	-	-	-	3,100	155
Spadefish	-	-	-	-	-	-	4,800	96
Spanish mackerel	-	-	-	-	-	-	54,800	3,288
Spot	-	-	-	-	3,000	60	367,000	7,190
Squeteagues or "sea trout":								
Gray	-	-	-	-	10,000	400	3,047,100	122,830
Spotted	-	-	24,700	1,970	1,000	50	481.000	26,860
Striped bass	15,000	1,257	1,100	108	34,900	3,435	474,800	34,393
Sturgeon	-	-	-	-	-	-	4,600	437
Suckers	-	-	-	-	-	-	1,900	95
White perch	1,700	136	-	-	55,300	2,675	13,400	670

Fisheries of North Carolina, 1936—Continued

CATCH: BY COUNTIES—Continued

Species	Chowan		Craven		Currituck		Dare	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Yellow perch					16, 100	$805		
Yellowtail							5, 100	$102
Crabs:								
Hard			90, 000	$1, 800	85, 000	1, 675	745, 500	14, 980
Soft and peelers					8, 500	2, 396		
Shrimp							50, 400	3, 012
Turtles, snapper					9, 500	323	20, 000	780
Total	8, 033, 700	$86, 735	389, 000	9, 766	680, 700	29, 842	10, 347, 300	416, 390

Species	Gates		Hertford		Hyde		Martin	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	112, 000	$1, 010	656, 500	$6, 105			324, 100	$5, 395
Bluefish					109, 000	$6, 310		
Butterfish					5, 000	100		
Carp							1, 200	46
Catfish and bullheads	10, 000	100	3, 000	75			37, 300	766
Croaker					746, 400	9, 634		
Drum, red or redfish					17, 100	343		
Flounders					42, 100	2, 180		
Harvestfish or "starfish"					238, 600	2, 886		
King whiting or "kingfish"					8, 400	192		
Mullet					78, 000	2, 850		
Shad			300	60	8, 100	1, 296		
Spadefish					100	2		
Spanish mackerel					21, 000	1, 290		
Spot					28, 300	566		
Squeteagues or "sea trout":								
Gray					1, 674, 400	47, 080		
Spotted					44, 000	3, 020		
Striped bass	3, 500	350	3, 000	300	1, 600	149	6, 400	770
White perch	1, 000	25			500	25	33, 400	1, 788
Yellow perch			1, 000	100				
Crabs, hard					322, 900	6, 840		
Shrimp					1, 700	97		
Clams, hard, public					24, 000	2, 100		
Oysters, market:								
Public, spring					121, 800	6, 381		
Public, fall					132, 500	7, 721		
Total	126, 500	1, 485	663, 800	6, 640	3, 625, 500	101, 062	402, 400	8, 765

Species	New Hanover		Onslow		Pamlico		Pasquotank	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives			2, 000	$35	8, 000	$120	9, 700	$147
Bluefish	500	$30			25, 000	1, 500		
Bowfin							600	6
Carp							12, 700	254
Catfish and bullheads	5, 000	150					29, 100	582
Croaker	18, 000	300	5, 000	75	2, 530, 400	25, 304	50, 000	1, 250
Drum, red or redfish			1, 700	51	3, 700	111		
Eels, common							1, 800	45
Flounders	36, 000	2, 200	16, 000	950	16, 800	870	32, 500	2, 225
Gizzard shad							2, 400	24
Harvestfish or "starfish"					94, 000	1, 045		
Hickory shad					11, 000	330	1, 700	51
King whiting or "kingfish"	4, 000	60	202, 000	8, 040	5, 500	98	20, 000	900
Mullet	552, 000	19, 057	677, 000	23, 483	110, 000	3, 900	4, 600	138
Pike or pickerel							300	15
Pompano					1, 600	160		
Sea bass			48, 000	1, 920				
Shad	91, 500	14, 640			63, 200	10, 012	23, 000	3, 680
Sheepshead					3, 100	155		
Spot	559, 500	14, 910	346, 000	8, 445	40, 000	450		
Squeteagues or "sea trout":								
Gray			80, 000	4, 000	975, 700	22, 887	8, 500	303
Spotted	18, 000	1, 000	60, 000	4, 600	139, 800	9, 674		
Striped bass					1, 000	100	29, 800	2, 640
Sturgeon							100	9
Suckers							700	35
White perch							8, 400	420
Yellowtail							100	5
Crabs, hard	340, 000	6, 800	718, 800	14, 826	1, 060, 600	21, 800		
Shrimp	134, 000	9, 020	15, 200	936	35, 000	1, 050		
Oysters, market:								
Public, spring	40, 000	2, 755	38, 300	3, 250	236, 700	11, 517		
Public, fall	74, 800	5, 170	75, 600	6, 400	423, 200	28, 415		
Private, spring			19, 800	2, 300				
Private, fall			38, 200	4, 350				
Total	1, 873, 300	76, 092	2, 343, 600	83, 661	5, 784, 300	139, 498	236, 000	12, 729

Fisheries of North Carolina, 1936—Continued

CATCH: BY COUNTIES—Continued

Species	Pender		Perquimans		Tyrrell		Washington	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives			133,000	$1,995	684,500	$10,873	582,600	$9,130
Bowfin			900	9	500	5		
Carp			20,600	412	56,500	2,740	14,300	339
Catfish and bullheads			63,500	1,270	82,000	1,640	28,400	568
Drum, red or redfish	5,000	$100						
Eels, common			3,700	93	100	3	1,500	30
Flounders	25,000	1,500	1,300	65	100	5		
Gizzard shad			8,500	85	100	1		
Hickory shad			11,800	354	3,600	105	16,800	505
Mullet	415,000	14,525	8,300	249	3,600	105		
Pike or pickerel			300	15				
Shad			48,100	7,696	36,000	5,760	39,900	6,007
Spot	1,184,000	29,550						
Squeteagues or "sea trout":								
Gray			700	28				
Spotted	4,000	200						
Striped bass			27,200	2,448	119,200	10,750	20,100	1,809
Suckers			1,300	65	1,000	50		
White perch			8,000	400	33,600	1,680	20,600	1,328
Yellow perch			300	15	3,600	180		
Yellowtail			100	5				
Crabs, hard	154,000	3,100						
Shrimp	2,000	200						
Oysters, market:								
Public, spring	6,400	550						
Public, fall	10,000	850						
Turtles, snapper			500	20				
Total	1,805,400	50,575	338,100	15,224	1,024,400	33,897	724,200	19,716

SEED OYSTER FISHERY: BY GEAR

Item	Oyster dredges	
OPERATING UNITS		
	Number	
Fishermen, on boats and shore:		
Regular	55	
Casual	45	
Total	100	
Boats, motor	37	
Apparatus, number	37	
Yards at mouth	25	
CATCH		
	Bushels	*Value*
Oysters, seed, public, spring	55,500	$11,100

NOTE.—Of the persons and gear employed in the seed oyster fishery 38 regular fishermen and 14 motorboats are duplicated among those in the market oyster fishery or fisheries for other species. The seed oyster fishery in North Carolina is confined to Hyde County.

SOUTH CAROLINA

Fisheries of South Carolina, 1936

OPERATING UNITS: BY GEAR

Item	Haul seines	Gill nets				Lines		Cast nets
		Anchor	Drift	Run-around	Stake	Hand	Trot with baits or snoods	
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	----	----	----	----	----	8	----	----
On boats and shore:								
Regular	111	80	72	89	20	138	291	40
Casual	210	250	112	30	10	----	15	3
Total	321	330	184	119	30	146	306	43
Vessels, motor	----	----	----	----	----	1	----	----
Net tonnage	----	----	----	----	----	8	----	----
Boats:								
Motor	3	20	12	2	----	5	----	2
Other	38	236	82	66	20	37	194	20
Apparatus:								
Number	46	247	93	67	20	204	194	28
Length, yards	7,325	----	----	----	----	----	----	----
Square yards	----	161,760	77,800	35,200	18,700	----	----	----
Hooks, baits, or snoods	----	----	----	----	----	319	97,800	----

Item	Otter trawls, shrimp	Pots, fish	Spears	Dredges, oyster	Tongs, oyster	Grabs	By hand		Total, exclusive of duplication
							Oyster	Other	
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	19	----	----	9	----	----	----	----	36
On boats and shore:									
Regular	45	13	80	----	18	152	172	----	753
Casual	----	4	42	----	----	----	110	160	806
Total	64	17	122	9	18	152	282	160	1,595
Vessels, motor	7	----	----	2	----	----	----	----	10
Net tonnage	97	----	----	25	----	----	----	----	130
Boats:									
Motor	21	1	2	----	----	----	----	----	55
Other	----	11	85	----	9	152	225	60	820
Apparatus:									
Number	28	53	122	3	18	152	----	----	----
Yards at mouth	596	----	----	5	----	----	----	----	----

CATCH: BY GEAR

Species	Haul seines		Gill nets					
			Anchor		Drift		Runaround	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bluefish	1,000	$80	----	----	----	----	2,000	$140
Drum:								
Black	29,500	680	----	----	----	----	12,500	500
Red or redfish	62,500	2,450	----	----	----	----	41,900	3,154
Flounders	----	----	----	----	----	----	2,000	120
Hickory shad	----	----	----	----	400	$5	----	----
King whiting or "kingfish"	71,000	2,550	----	----	----	----	1,000	50
Mullet	617,400	24,020	----	----	----	----	129,900	6,499
Permit	8,000	400	----	----	----	----	----	----
Shad	----	----	112,800	$17,840	42,500	6,828	----	----
Sheepshead	----	----	----	----	----	----	2,000	100
Spot	616,800	12,250	----	----	----	----	45,900	1,489
Squeteagues or "sea trout":								
Gray	----	----	----	----	----	----	3,000	210
Spotted	57,500	3,670	----	----	----	----	23,500	2,200
Sturgeon	----	----	9,000	585	49,500	3,465	----	----
Shrimp	4,000	400	----	----	----	----	----	----
Terrapin, diamond back	1,800	190	----	----	----	----	----	----
Total	1,469,500	46,690	121,800	18,425	92,400	10,298	263,700	14,460

Fisheries of South Carolina, 1936—Continued

CATCH: BY GEAR—Continued

Species	Gill nets—Continued		Lines				Cast nets	
	Stake		Hand		Trot with baits or snoods			
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bluefish			6,600	$665				
Grunts			8,000	500				
Hickory shad	400	$5						
King whiting or "kingfish"			45,000	3,150				
Sea bass			162,900	11,020				
Sea catfish			150,000	4,000				
Shad	21,800	3,408						
Sharks			75,000	750				
Squeteagues or "sea trout," spotted			15,000	1,000				
Crabs, hard					1,626,400	$17,987		
Shrimp							82,000	$6,150
Total	22,200	3,413	462,500	21,085	1,626,400	17,987	82,000	6,150

Species	Otter trawls		Pots		Spears		Dredges	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Catfish and bullheads			121,200	$4,381				
Flounders	7,000	$280			55,500	$4,750		
Squeteagues or "sea trout," spotted					2,000	140		
Shrimp	1,014,800	30,474						
Oysters, market:								
Private, spring							87,500	$10,550
Private, fall							3,800	188
Total	1,021,800	30,754	121,200	4,381	57,500	4,890	91,300	10,738

Species	Tongs		Grabs		By hand	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Crabs, soft and peelers					9,200	$550
Clams, hard, public					20,200	1,780
Oysters, market:						
Public, spring			800	$49	1,700	194
Public, fall			2,000	121	4,700	455
Private, spring	90,500	$4,527	1,364,000	67,925	610,400	29,536
Private, fall	32,500	2,040	513,100	25,597	406,900	21,434
Total	123,000	6,567	1,879,900	93,692	1,053,100	53,949

OPERATING UNITS: BY COUNTIES

Item	Beaufort	Charleston	Colleton	Georgetown	Horry	Jasper
	Number	*Number*	*Number*	*Number*	*Number*	*Number*
Fishermen:						
On vessels	4	30		2		
On boats and shore:						
Regular	293	221		179	33	27
Casual	138	152	78	205	233	
Total	435	403	78	386	266	27
Vessels, motor	1	8		1		
Net tonnage	22	99		9		
Boats:						
Motor	15	11		26	2	1
Other	284	221	68	144	82	21
Apparatus:						
Haul seines	3	3		25	15	
Length, yards	600	450		3,475	2,800	
Gill nets:						
Anchor	41	52	58	61	35	
Square yards	13,500	14,160	14,600	117,000	2,500	
Drift	28	20	10	31	4	
Square yards	14,000	14,000	7,000	42,000	800	
Runaround	1	5		45	15	1
Square yards	800	1,800		29,750	2,250	600
Stake				10	10	
Square yards				18,000	700	

Fisheries of South Carolina, 1936—Continued

OPERATING UNITS: BY COUNTIES—Continued

Item	Beaufort	Charleston	Colleton	Georgetown	Horry	Jasper
Apparatus—Continued.						
Lines:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Hand	100	77		9	18	
Hooks	100	138		27	54	
Trot with baits or snoods	121	73				
Baits or snoods	72,000	25,800				
Cast nets		28				
Otter trawls, shrimp	11	11		6		
Yards at mouth	225	253		118		
Pots, fish	25			28		
Spears	50	6		58	8	
Dredges, oyster		3				
Yards at mouth		5				
Tongs, oyster		18				
Grabs	88	64				

CATCH: BY COUNTIES

Species	Beaufort		Charleston		Colleton	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bluefish			6,600	$665		
Catfish and bullheads	28,200	$1,171				
Drum:						
Black	25,000	500	2,000	80		
Red or redfish	51,500	1,825	25,000	2,000		
Flounders	22,000	1,780	4,000	240		
Grunts			8,000	500		
King whiting or "kingfish"	50,500	1,525	45,000	3,150		
Mullet	25,000	850	15,000	750		
Sea bass	10,000	800	133,400	8,270		
Sea catfish			150,000	4,000		
Shad	7,000	1,260	39,700	6,280	35,200	$5,640
Sharks			75,000	750		
Sheepshead			2,000	100		
Spot	6,000	140	1,000	30		
Squeteagues or "sea trout," spotted	52,000	3,200	23,000	1,700		
Sturgeon					9,000	585
Crabs:						
Hard	973,200	9,985	653,200	8,002		
Soft and peelers			9,200	550		
Shrimp	365,900	11,007	574,200	20,916		
Oysters, market:						
Public, spring			800	49		
Public, fall			2,000	121		
Private, spring	1,107,500	53,980	999,900	56,158		
Private, fall	511,700	24,010	404,600	23,149		
Terrapin, diamond back			1,800	190		
Total	3,235,500	112,033	3,175,400	137,650	44,200	6,225

Species	Georgetown		Horry		Jasper	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bluefish	3,000	$220				
Catfish and bullheads	93,000	3,210				
Drum:						
Black	15,000	600				
Red or redfish	26,900	1,729			1,000	$50
Flounders	37,000	3,040	1,500	$90		
Hickory shad			800	10		
King whiting or "kingfish"			21,000	1,050	500	25
Mullet	506,900	19,899	195,400	8,770	5,000	250
Permit	1,000	50	7,000	350		
Sea bass	7,500	750	12,000	1,200		
Shad	88,200	13,770	7,000	1,126		
Spot	490,900	8,849	162,800	4,640	2,000	80
Squeteagues or "sea trout":						
Gray	3,000	210				
Spotted	21,000	1,930	1,000	80	1,000	100
Sturgeon	49,500	3,465				
Shrimp	160,700	5,101				
Clams, hard, public	17,000	1,500	3,200	280		
Oysters, market:						
Public, spring	500	34	1,200	160		
Public, fall	2,300	155	2,400	300		
Private, spring					45,000	2,400
Private, fall					40,000	2,100
Total	1,523,400	64,512	415,300	18,056	94,500	5,005

GEORGIA

Fisheries of Georgia, 1936

OPERATING UNITS: BY GEAR

Item	Purse seines, menhaden	Haul seines	Gill nets				Lines		
			Anchor	Drift	Run-around	Stake	Hand	Trot with baits or snoods	Trot with hooks
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	43								
On boats and shore:									
Regular		16		32	30	1	20	308	1
Casual		6	6	267	40	106	48		1
Total	43	22	6	299	70	107	68	308	2
Vessels, motor	2								
Net tonnage	92								
Boats:									
Motor					13				
Other		11	6	160	50	94	40	181	2
Accessory boats	4								
Apparatus:									
Number	2	11	25	160	35	258	348	181	2
Length, yards	600	1,132							
Square yards			1,875	99,150	16,000	26,650			
Hooks, baits, or snoods							348	87,000	325

Item	Otter trawls, shrimp	Pots		Tongs, oyster	Grabs	By hand		Total, exclusive of duplication
		Crab	Fish			Oyster	Other	
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	121							164
On boats and shore:								
Regular	255	86		7	17	76	8	712
Casual			22					456
Total	376	86	22	7	17	76	8	1,332
Vessels, motor	53							55
Net tonnage	416							508
Boats:								
Motor	124							137
Other		74	11	7	17	76		576
Accessory boats								4
Apparatus:								
Number	177	436	55	7	17			
Yards at mouth	3,860							

CATCH: BY GEAR

Species	Purse seines		Haul seines		Gill nets			
					Anchor		Drift	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Hickory shad							15,600	$312
Menhaden	14,500,000	$58,000						
Shad					3,800	$850	175,000	29,990
Sturgeon							10,400	538
Terrapin, diamond back			16,700	$2,640				
Total	14,500,000	58,000	16,700	2,640	3,800	850	201,000	30,840

Fisheries of Georgia, 1936—Continued

CATCH: BY GEAR—Continued

Species	Gill nets—Continued				Lines					
	Runaround		Stake		Hand		Trot with baits or snoods		Trot with hooks	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Catfish and bullheads									3,200	$150
Croaker	5,000	$200								
Drum:										
Black	10,000	400								
Red or redfish	50,000	2,550								
Flounders	4,000	250								
Hickory shad			5,300	$106						
King whiting or "kingfish"	6,000	300								
Mullet	17,000	850								
Shad			57,200	11,372						
Sheepshead	10,000	400								
Spot	10,000	400								
Squeteagues or "sea trout," spotted	115,000	10,700								
Crabs, hard					287,400	$4,311	1,326,200	$19,898		
Total	227,000	16,050	62,500	11,478	287,400	4,311	1,326,200	19,898	3,200	150

Species	Otter trawls		Pots		Tongs		Grabs		By hand	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Catfish and bullheads			34,000	$1,530						
Flounders	4,500	$225								
King whiting or "kingfish"	69,500	1,040								
Crabs, hard	119,400	2,276	449,200	6,548						
Shrimp	9,714,800	291,402								
Oysters, market:										
Private, spring					50,000	$3,120	22,700	$1,247	135,500	$8,959
Private, fall					25,000	1,570	200	11	96,700	6,159
Terrapin, diamond back									3,000	475
Total	9,908,200	294,943	483,200	8,078	75,000	4,690	22,900	1,258	235,200	15,593

OPERATING UNITS: BY COUNTIES

Item	Bryan	Bullock	Camden	Charlton	Chatham	Effingham
	Number	*Number*	*Number*	*Number*	*Number*	*Number*
Fishermen:						
On vessels			60		27	
On boats and shore:						
Regular			108		106	
Casual	62	15	18	12	179	6
Total	62	15	186	12	312	6
Vessels, motor			10		9	
Net tonnage			156		115	
Boats:						
Motor			15		34	
Other	36	14	64	12	124	6
Accessory boats			4			
Apparatus:						
Purse seines, menhaden			2			
Length, yards			600			
Haul seines					4	
Length, yards					332	
Gill nets:						
Anchor						25
Square yards						1,875
Drift	25		20		58	
Square yards	12,350		10,000		33,000	
Runaround					20	
Square yards					10,000	
Stake	51	56	40	18	6	
Square yards	4,956	1,890	5,600	3,600	504	
Lines:						
Hand					348	
Baits					348	
Trot with baits or snoods			40		21	
Baits or snoods			20,000		7,000	
Otter trawls, shrimp			23		34	
Yards at mouth			496		758	
Pots, crab			50		216	
Tongs, oyster					7	

Fisheries of Georgia, 1936—Continued

OPERATING UNITS: BY COUNTIES—Continued

Item	Glynn	Liberty	Long	McIntosh	Screven	Tattnall	Wayne
	Number	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Fishermen:							
On vessels	71			6			
On boats and shore:							
Regular	213	85		199			1
Casual	70		3	38	17	20	16
Total	354	85	3	243	17	20	17
Vessels, motor	33			3			
Net tonnage	218			19			
Boats:							
Motor	48			40			
Other	119	50	2	100	17	20	12
Apparatus:							
Haul seines	7						
Length, yards	800						
Gill nets:							
Drift	32			25			
Square yards	25,200			18,600			
Runaround	15						
Square yards	6,000						
Stake			5		50	20	12
Square yards			400		2,500	3,600	3,600
Lines:							
Trot with baits or snoods	45	35		40			
Baits or snoods	22,500	17,500		20,000			
Trot with hooks					1		1
Hooks					25		300
Otter trawls, shrimp	77			43			
Yards at mouth	1,681			925			
Pots:							
Crab	60	50		60			
Fish				55			
Grabs				17			

CATCH: BY COUNTIES

Species	Bryan		Bullock		Camden		Charlton	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Menhaden					14,500,000	$58,000		
Shad	43,000	$7,500	5,000	$1,062	26,000	5,200	10,000	$2,000
Sturgeon					1,400	68		
Crabs, hard					373,000	5,600		
Shrimp					1,540,500	46,215		
Total	43,000	7,500	5,000	1,062	16,440,900	115,083	10,000	2,000

Species	Chatham		Effingham		Glynn		Liberty	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Croaker					5,000	$200		
Drum:								
Black					10,000	400		
Red or redfish	15,000	$800			35,000	1,750		
Flounders	4,500	225			4,000	250		
Hickory shad	3,500	70			6,000	120		
King whiting or "kingfish"	69,500	1,040			6,000	300		
Mullet	5,000	250			12,000	600		
Shad	78,400	10,500	3,800	$850	37,100	8,250		
Sheepshead					10,000	400		
Spot	5,000	200			5,000	200		
Squeteagues or "sea trout," spotted	75,000	7,500			40,000	3,200		
Crabs, hard	459,200	6,888			562,000	8,910	360,000	$5,405
Shrimp	1,863,200	55,866			4,938,100	148,131		
Oysters, market:								
Private, spring	120,000	7,520			9,000	550	22,000	1,200
Private, fall	85,000	5,330			9,000	550	13,000	800
Terrapin, diamond back	6,000	950			13,700	2,165		
Total	2,789,300	97,139	3,800	850	5,701,900	175,976	395,000	7,405

Fisheries of Georgia, 1936—Continued

CATCH: BY COUNTIES—Continued

Species	Long		McIntosh		Screven		Tattnall		Wayne	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Catfish and bullheads			34,000	$1,530	1,000	$50			2,200	$100
Hickory shad			6,100	122					5,300	106
Shad	1,000	$203	12,300	2,725	7,500	1,422	3,700	$750	8,200	1,750
Sturgeon			9,000	470						
Crabs, hard			428,000	6,230						
Shrimp			1,373,000	41,190						
Oysters, market:										
Private, spring			57,200	4,056						
Private, fall			14,900	1,060						
Total	1,000	203	1,934,500	57,383	8,500	1,472	3,700	750	15,700	1,956

FLORIDA

Fisheries of Florida, 1936

OPERATING UNITS: BY GEAR

Item	Purse seines, menhaden	Haul seines	Gill nets				Trammel nets	Lines, hand
			Anchor	Drift	Run-around	Stake		
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	206	9	3					512
On boats and shore:								
Regular		1,047	32	164	2,586		556	935
Casual		134		17	29	14	10	1,111
Total	206	1,190	35	181	2,615	14	566	2,558
Vessels, motor	10	1	1					68
Net tonnage	629	11	12					2,180
Boats:								
Motor		275	14	63	1,053		226	654
Other		288	3	78	1,854	7	354	609
Accessory boats	22							
Apparatus:								
Number	10	296	20	102	2,077	7	434	2,606
Length, yards	2,960	157,225						
Square yards			34,450	144,600	1,917,305	5,300	294,600	
Hooks, baits, or snoods								3,098

Item	Lines—Continued				Pound nets	Fyke nets	Dip nets		Cast nets	Otter trawls, shrimp
	Trawl	Troll	Trot with baits or snoods	Trot with hooks			Common	Drop		
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels										457
On boats and shore:										
Regular	2	691	179	149	10	1	56	10	95	298
Casual		450	66	185			65	17	44	
Total	2	1,141	245	334	10	1	121	27	139	755
Vessels, motor										178
Net tonnage										1,411
Boats:										
Motor	1	594	44	49	8	1	16		3	147
Other		10	184	287	9		76	12	136	
Apparatus:										
Number	2	1,207	228	334	23	10	113	303	139	325
Yards at mouth										6,590
Hooks, baits, or snoods	180	1,337	98,200	105,725						

Fisheries of Florida, 1936—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Box traps	Pots				Spears	Dredges			Tongs, oyster
		Crab	Eel	Fish	Sea crawfish		Clam	Oyster	Scallop	
Fishermen:										
On boats and shore:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Regular	2	42	5	46	56	61	12	6	55	292
Casual		8		13		61			67	32
Total	2	50	5	59	56	122	12	6	122	324
Boats:										
Motor	1	27		10	28	8		3	50	86
Other		16	5	54		55	1			194
Apparatus:										
Number	300	4,821	73	3,490	1,140	122	1	3	74	324
Yards at mouth								3	82	

Item	Rakes, oyster	Forks	Grabs	Coquina scoops	Hooks		Diving outfits	By hand		Total, exclusive of duplication
					Sponge	Conch		Oysters	Other	
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels							30			1,211
On boats and shore:										
Regular	1	6	3		368	1	448	30	64	5,636
Casual		5		9		1		24	131	2,022
Total	1	11	3	9	368	2	478	54	195	8,869
Vessels, motor							3			259
Net tonnage							19			4,238
Boats:										
Motor			2				56	2		2,283
Other	1	8	1		254	2		35	17	3,538
Accessory boats										22
Apparatus, number	1	11	3	6	254	2	59			

CATCH: BY GEAR

Species	Purse seines		Haul seines		Gill nets			
					Anchor		Drift	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives			231,500	$1,158				
Bluefish	500	$30	417,100	18,623			29,700	$1,638
Blue runner or hardtail			435,700	4,663				
Cabio or crab eater			1,600	32				
Catfish and bullheads			3,358,200	110,560				
Cigarfish			11,000	255				
Crappie			333,700	11,488				
Crevalle			65,500	1,065				
Croaker			15,500	304				
Drum:								
Black			64,100	1,422				
Red or redfish			278,000	9,148				
Flounders			43,400	1,576				
Groupers			32,600	1,333			5,000	150
Hickory shad			37,000	770				
Jewfish			8,100	144				
Kingfish or "king mackerel"			6,200	186				
King whiting or "kingfish"			178,100	4,175				
Menhaden	68,750,000	268,250	31,800	488				
Mojarra			91,400	2,310				
Moonfish			2,500	75				
Mullet			6,077,100	181,167				
Muttonfish			25,000	2,000				
Permit			4,200	82				

Fisheries of Florida, 1936—Continued

CATCH: BY GEAR—Continued

Species	Purse seines		Haul seines		Gill nets			
					Anchor		Drift	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Pigfish	----------	--------	25, 100	$497	--------	--------	--------	------
Pompano	----------	--------	85, 900	19, 712	--------	--------	1, 100	$187
Porgies	----------	--------	1, 000	20	--------	--------	--------	------
Sea catfish	----------	--------	600	12	--------	--------	--------	------
Shad	----------	--------	143, 300	10, 788	10, 500	$1, 260	118, 200	13, 275
Sharks	----------	--------	----------	--------	477, 000	1, 470	--------	------
Sheepshead	----------	--------	298, 500	7, 427	--------	--------	--------	------
Snapper, mangrove	----------	--------	46, 600	1, 461	--------	--------	--------	------
Snook or sergeantfish	----------	--------	155, 400	6, 692	--------	--------	--------	------
Spadefish	----------	--------	4, 600	118	--------	--------	--------	------
Spanish mackerel	----------	--------	1, 521, 400	48, 138	--------	--------	15, 600	624
Spot	----------	--------	58, 800	1, 132	--------	--------	--------	------
Squeteagues or "sea trout":								
Spotted	----------	--------	673, 600	41, 160	--------	--------	--------	------
White	----------	--------	39, 500	1, 673	--------	--------	--------	------
Sturgeon	----------	--------	----------	--------	--------	--------	29, 500	3, 550
Sunfish	----------	--------	594, 000	16, 091	--------	--------	--------	------
Tenpounder	----------	--------	41, 000	950	--------	--------	--------	------
Tripletail	----------	--------	37, 300	560	--------	--------	--------	------
Turtles:								
Green	----------	--------	----------	--------	17, 700	2, 115	--------	------
Soft shell	----------	--------	46, 600	725	--------	--------	--------	------
Total	68, 750, 500	$268, 280	15, 522, 500	510, 180	505, 200	4, 845	199, 100	19, 424

Species	Gill nets—Continued				Trammel nets		Lines, hand	
	Runaround		Stake					
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Angelfish	----------	----------	--------	--------	1, 500	$45	----------	-------
Bluefish	2, 860, 200	$150, 967	--------	--------	65, 200	2, 203	303, 200	$15, 420
Blue runner or hardtail	124, 000	2, 305	--------	--------	37, 800	569	1, 000	40
Cabio or crab eater	1, 000	20	--------	--------	----------	--------	3, 300	91
Crevalle	117, 700	2, 239	--------	--------	----------	--------	----------	-------
Croaker	24, 500	540	--------	--------	----------	--------	----------	-------
Drum:								
Black	85, 100	1, 871	--------	--------	500	10	47, 100	1, 319
Red or redfish	423, 700	13, 833	--------	--------	193, 700	6, 642	262, 200	8, 292
Flounders	19, 100	733	--------	--------	25, 600	882	----------	-------
Groupers	25, 000	837	--------	--------	----------	--------	4, 741, 900	137, 536
Grunts	----------	----------	--------	--------	----------	--------	38, 700	927
Hogfish	4, 000	120	--------	--------	----------	--------	6, 000	180
Jewfish	14, 700	318	--------	--------	----------	--------	12, 500	513
King whiting or "kingfisb"	38, 200	705	--------	--------	400	16	4, 200	126
Menhaden	93, 000	630	--------	--------	----------	--------	----------	-------
Mojarra	230, 100	4, 953	--------	--------	----------	--------	14, 300	366
Mullet	22, 969, 800	726, 241	--------	--------	2, 135, 000	64, 965	----------	-------
Muttonfish	49, 000	2, 920	--------	--------	----------	--------	61, 500	4, 210
Permit	11, 400	228	--------	--------	500	10	----------	-------
Pigfish	40, 300	817	--------	--------	4, 400	132	1, 400	28
Pinfish or sailors' choice	31, 600	562	--------	--------	----------	--------	1, 500	30
Pompano	209, 400	45, 847	--------	--------	406, 000	80, 937	11, 300	2, 630
Porgies	7, 700	231	--------	--------	----------	--------	28, 100	713
Sea bass	----------	----------	--------	--------	----------	--------	77, 400	3, 744
Sea catfish	----------	----------	--------	--------	100	2	2, 100	42
Shad	----------	----------	10, 500	$1, 475	----------	--------	----------	-------
Sheepshead	429, 500	9, 874	--------	--------	70, 300	2, 489	108, 400	2, 458
Snapper:								
Mangrove	64, 900	2, 402	--------	--------	6, 400	223	122, 300	5, 473
Red	5, 200	312	--------	--------	----------	--------	4, 938, 800	308, 155
Snook or sergeantfish	142, 600	5, 170	--------	--------	----------	--------	282, 800	10, 834
Spadefish	8, 000	161	--------	--------	----------	--------	1, 600	96
Spanish mackerel	6, 882, 500	290, 253	--------	--------	52, 100	2, 097	59, 100	2, 616
Spot	137, 300	2, 841	--------	--------	12, 400	362	----------	-------
Squeteagues or "sea trout":								
Spotted	1, 647, 600	106, 211	--------	--------	462, 600	31, 735	1, 393, 500	90, 391
White	32, 200	1, 444	--------	--------	2, 300	92	15, 100	594
Swellfish	----------	----------	--------	--------	----------	--------	800	40
Tenpounder	5, 900	120	--------	--------	----------	--------	----------	-------
Yellowtail	----------	----------	--------	--------	----------	--------	109, 600	6, 256
Total	36, 735, 200	1, 375, 705	10, 500	1, 475	3, 476, 800	193, 411	12, 649, 700	603, 120

Fisheries of Florida, 1936—Continued

CATCH: BY GEAR—Continued

Species	Lines—Continued							
	Trawl		Troll		Trot with baits or snoods		Trot with hooks	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Amberjack			13,400	$365				
Bluefish			106,000	5,450				
Catfish and bullheads							783,900	$30,311
Dolphin			5,000	100				
Eels, common							5,000	145
Groupers			2,900	87				
Kingfish or "king mackerel"			3,937,900	161,305				
King whiting or "kingfish"			1,000	20				
Sea catfish							94,900	1,898
Sharks	560,000	$1,800						
Snapper, red			300	24				
Snook or sergeantfish			15,500	532				
Spadefish			5,500	330				
Spanish mackerel			395,000	19,740				
Crabs, hard					2,520,000	$37,256		
Turtle, soft shell							53,000	915
Total	560,000	1,800	4,482,500	187,953	2,520,000	37,256	936,800	33,269

Species	Pound nets		Fyke nets		Dip nets			
					Common		Drop	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bluefish	2,500	$125						
Catfish and bullheads	75,000	2,900	60,000	$2,100				
Drum, red, or redfish	2,600	97						
Jewfish	500	10						
Spanish mackerel	10,000	400						
Squeteagues or "sea trout," spotted	4,800	336						
Crabs, hard					28,400	$641	156,100	$2,859
Sea crawfish or spiny lobster					134,300	7,140		
Shrimp					8,200	1,350		
Turtles, green	1,000	60						
Total	96,400	3,928	60,000	2,100	170,900	9,131	156,100	2,859

Species	Cast nets		Otter trawls		Box traps		Pots	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Flounders			204,600	$10,290				
King whiting or "kingfish"			1,634,600	27,397				
Mojarra	5,000	$200						
Mullet	179,800	5,909						
Crabs:								
Hard			87,000	1,740			357,500	$7,140
Stone							42,200	8,255
Sea crawfish or spiny lobster					20,000	$1,600	3,000	150
Shrimp	82,000	5,610	20,634,700	621,483				
Total	266,800	11,719	22,560,900	660,910	20,000	1,600	402,700	15,545

Fisheries of Florida, 1936—Continued

CATCH: BY GEAR—Continued

Species	Pots—Continued						Spears	
	Eel		Fish		Sea crawfish			
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Catfish and bullheads			70,900	$2,415				
Crappie			129,300	4,270				
Eels, common	14,400	$437						
Flounders							61,600	$3,118
Groupers					59,800	$3,000		
Grunts					20,000	600		
Hogfish					3,000	90		
Jewfish					3,000	90		
Mojarra					11,300	340		
Muttonfish					30,000	2,400		
Sheepshead					8,000	240		
Snapper, mangrove					3,000	225		
Snook or sergeantfish					9,000	270		
Sunfish			83,400	2,820				
Sea crawfish or spiny lobster					150,000	9,650	19,300	1,550
Turtles, soft shell			300	6				
Total	14,400	437	283,900	9,511	297,100	16,905	80,900	4,668

Species	Dredges						Tongs	
	Clam		Oyster		Scallop			
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Clams, hard, public	589,800	$36,860						
Oysters, market:								
Public, spring			202,400	$8,432			311,500	$22,028
Public, fall							436,900	32,602
Private, spring							141,300	7,551
Private, fall							95,400	3,361
Scallops, bay					251,100	$25,960		
Total	589,800	36,860	202,400	8,432	251,100	25,960	985,100	65,542

Species	Rakes		Forks		Grabs		Coquina scoops	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Clams:								
Coquina							4,300	$720
Hard, public			7,400	$777	8,800	$1,100		
Oysters, market:								
Public, spring	1,800	$150						
Public, fall	1,800	150						
Total	3,600	300	7,400	777	8,800	1,100	4,300	720

Species	Hooks				Diving outfits		By hand	
	Sponge		Conch					
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Crabs, stone							2,600	$515
Clams, hard, public							28,200	2,443
Conch			7,800	$624				
Oysters, market:								
Public, spring							94,000	3,693
Public, fall							23,600	936
Private, spring							24,300	1,075
Private, fall							40,100	1,790
Scallops, bay							81,000	6,563
Sponges:								
Grass	22,800	$18,401						
Sheepswool	74,100	146,108			287,500	$853,667		
Wire					8,400	6,582		
Yellow	34,500	19,778			62,600	60,509		
Total	131,400	184,287	7,800	624	358,500	920,758	293,800	17,015

Fisheries of Florida, 1936—Continued

OPERATING UNITS: BY COUNTIES

Item	Bay	Brevard	Broward	Charlotte	Citrus	Clay	Collier	Dade
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	96							9
On boats and shore:								
Regular	202	153	23	157	149	44	260	242
Casual	42	33	60	33	32	14	124	155
Total	340	186	83	190	181	58	384	406
Vessels, motor	15							1
Net tonnage	247							11
Boats:								
Motor	54	71	40	58	62	10	125	166
Other	58	158	6	152	147	52	178	37
Apparatus:								
Haul seines	16		1	22		8	6	1
Length, yards	6,850		400	17,800		6,200	2,400	350
Gill nets:								
Anchor		1						
Square yards		1,000						
Runaround	16	93	6	132	128		176	55
Square yards	13,300	75,600	12,000	153,350	84,000		137,325	96,600
Trammel nets	2			12			34	
Square yards	1,400			17,800			58,800	
Lines:								
Hand	149	16	50	54	54		197	250
Hooks	298	16	50	54	54		197	250
Troll			22	14			57	247
Hooks			22	14			57	247
Trot with baits or snoods	2	47				32		
Baits or snoods	500	28,500				7,400		
Trot with hooks						32		
Hooks						8,700		
Dip nets, common	15	10						13
Cast nets				25				
Box traps			300					
Pots:								
Crab		2,670						270
Sea crawfish								1,140
Spears	13							16
Dredges:								
Clam							1	
Scallops	14							
Yards at mouth	14							
Tongs, oyster	57			2		26		

Item	Dixie	Duval	Escambia	Franklin	Glades	Gulf	Hendry	Hernando
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels		38	269	51		56		
On boats and shore:								
Regular	99	272	90	365	30	49	4	8
Casual	36	145	20	31		60	3	
Total	135	455	379	447	30	165	7	8
Vessels, motor		16	30	11		2		
Net tonnage		122	1,693	69		93		
Boats:								
Motor	30	104	34	170	19	37	3	2
Other	117	192	20	91	30	40	4	8
Accessory boats						6		
Apparatus:								
Purse seines, menhaden						2		
Length, yards						560		
Haul seines		15	1	12	10	6	1	
Length, yards		7,600	300	4,900	9,200	2,450	950	
Gill nets:								
Anchor		9						
Square yards		23,900						
Drift	12	39		4				
Square yards	14,000	90,000		1,600				
Runaround	74	15	10	41		11		8
Square yards	34,500	10,500	28,000	20,900		11,500		4,000
Trammel nets	72		20	2				
Square yards	33,000		18,000	500				
Lines:								
Hand	65	91	300	70		8		
Hooks	65	91	577	117		8		

Fisheries of Florida, 1936—Continued

OPERATING UNITS: BY COUNTIES—Continued

Item	Dixie	Duval	Escambia	Franklin	Glades	Gulf	Hendry	Hernando
Apparatus—Continued								
Lines—Continued	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Troll	16	22	--------	2	--------	--------	--------	--------
Hooks	16	22	--------	2	--------	--------	--------	--------
Trot with baits or snoods	--------	72	--------	24	--------	--------	--------	--------
Baits or snoods	--------	30, 800	--------	8, 600	--------	--------	--------	--------
Trot with hooks	--------	100	--------	9	7	2	1	--------
Hooks	--------	30, 000	--------	2, 100	3, 500	275	400	--------
Dip nets:								
Common	--------	--------	--------	3	--------	--------	--------	--------
Drop	--------	--------	15	--------	--------	--------	--------	--------
Cast nets	--------	6	--------	--------	--------	--------	--------	--------
Otter trawls, shrimp	--------	27	19	69	--------	--------	--------	--------
Yards at mouth	--------	615	203	828	--------	--------	--------	--------
Pots:								
Crab	--------	20	--------	--------	--------	--------	--------	--------
Fish	--------	--------	--------	225	1, 500	--------	120	--------
Spears	--------	--------	--------	20	--------	24	--------	--------
Dredges								
Oyster	--------	--------	--------	3	--------	--------	--------	--------
Yards at mouth	--------	--------	--------	3	--------	--------	--------	--------
Scallop	--------	--------	--------	--------	--------	49	--------	--------
Yards at mouth	--------	--------	--------	--------	--------	57	--------	--------
Tongs, oyster	1	8	--------	120	--------	12	--------	--------

Item	Hillsborough	Indian River	Lee	Levy	Manatee	Martin	Monroe	Nassau
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	66	--------	--------	--------	--------	--------	--------	260
On boats and shore:								
Regular	127	62	231	124	94	126	227	105
Casual	--------	8	181	44	64	--------	8	31
Total	193	70	412	168	158	126	235	396
Vessels, motor	10	--------	--------	--------	--------	--------	--------	54
Net tonnage	105	--------	--------	--------	--------	--------	--------	871
Boats:								
Motor	46	28	119	59	36	59	54	32
Other	114	69	222	128	96	50	160	58
Accessory boats	--------	--------	--------	--------	--------	--------	--------	16
Apparatus:								
Purse seines, menhaden	--------	--------	--------	--------	--------	--------	--------	8
Length, yards	--------	--------	--------	--------	--------	--------	--------	2, 400
Haul seines	2	--------	10	--------	22	10	--------	7
Length, yards	600	--------	2, 800	--------	6, 050	10, 000	--------	2, 100
Gill nets:								
Anchor	--------	--------	--------	--------	--------	1	8	--------
Square yards	--------	--------	--------	--------	--------	1, 000	7, 200	--------
Drift	--------	--------	--------	--------	8	--------	--------	17
Square yards	--------	--------	--------	--------	2, 400	--------	--------	8, 700
Runaround	113	28	199	94	86	36	25	3
Square yards	82, 270	36, 700	132, 500	46, 600	71, 200	67, 000	26, 750	2, 400
Stake	--------	--------	--------	--------	--------	--------	--------	7
Square yards	--------	--------	--------	--------	--------	--------	--------	5, 300
Trammel nets	2	--------	10	104	8	--------	3	--------
Square yards	750	--------	14, 500	53, 700	6, 900	--------	2, 700	--------
Lines:								
Hand	79	32	154	74	51	58	38	--------
Hooks	79	32	154	74	51	58	38	--------
Trawl	--------	--------	--------	--------	2	--------	--------	--------
Hooks	--------	--------	--------	--------	180	--------	--------	--------
Troll	--------	--------	56	43	11	52	48	--------
Hooks	--------	--------	56	43	11	104	48	--------
Trot with baits or snoods	1	6	8	5	--------	--------	--------	18
Baits or snoods	50	1, 500	1, 500	500	--------	--------	--------	15, 000
Dip nets:								
Common	--------	--------	--------	--------	--------	--------	34	--------
Drop	--------	--------	276	--------	--------	--------	--------	--------
Cast nets	28	--------	--------	--------	8	--------	--------	--------
Otter trawls, shrimp	--------	--------	--------	--------	--------	--------	--------	75
Yards at mouth	--------	--------	--------	--------	--------	--------	--------	1, 648
Pots, crab	--------	--------	--------	250	100	--------	52	--------
Dredges, scallop	--------	--------	10	--------	--------	--------	--------	--------
Yards at mouth	--------	--------	10	--------	--------	--------	--------	--------
Tongs, oyster	5	2	--------	3	--------	--------	--------	--------
Forks	--------	--------	--------	--------	9	--------	--------	--------
Coquina scoops	--------	--------	6	--------	--------	--------	--------	--------
Hooks:								
Sponge	--------	--------	--------	--------	--------	--------	140	--------
Conch	--------	--------	--------	--------	--------	--------	2	--------

Fisheries of Florida, 1936—Continued

OPERATING UNITS: BY COUNTIES—Continued

Item	Okaloosa	Okeechobee	Palm Beach	Pasco	Pinellas	Putnam	St. Johns	St. Lucie
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	14	-------	-------	-------	51	-------	287	3
On boats and shore:								
Regular	112	69	303	56	909	160	98	164
Casual	4	3	202	30	212	-------	26	-------
Total	130	72	505	86	1, 172	160	411	167
Vessels, motor	2	-------	-------	-------	6	-------	108	1
Net tonnage	28	-------	-------	-------	66	-------	893	5
Boats:								
Motor	25	32	218	15	217	66	24	82
Other	22	64	125	56	290	137	43	-------
Apparatus:								
Haul seines	12	9	2	-------	22	38	15	-------
Length, yards	4, 900	7, 400	1, 600	-------	6, 200	35, 050	1, 100	-------
Gill nets:								
Anchor	-------	-------	-------	-------	1	-------	-------	-------
Square yards	-------	-------	-------	-------	1, 350	-------	-------	-------
Drift	2	-------	-------	-------	8	12	-------	-------
Square yards	600	-------	-------	-------	18, 300	9, 000	-------	-------
Runaround	5	-------	109	56	184	-------	-------	82
Square yards	3, 500	-------	219, 000	30, 000	167, 010	-------	-------	155, 400
Trammel nets	17	-------	-------	-------	7	-------	-------	-------
Square yards	12, 000	-------	-------	-------	4, 350	-------	-------	-------
Lines:								
Hand	40	-------	300	30	151	-------	7	110
Hooks	59	-------	300	30	151	-------	7	110
Troll	-------	-------	191	-------	218	-------	4	110
Hooks	-------	-------	266	-------	218	-------	4	110
Trot with hooks	-------	41	-------	-------	-------	47	-------	-------
Hooks	-------	18, 500	-------	-------	-------	15, 000	-------	-------
Pound nets	-------	-------	-------	-------	-------	22	-------	-------
Fyke nets	-------	-------	-------	-------	-------	10	-------	-------
Dip nets, common	-------	-------	25	-------	-------	-------	-------	-------
Cast nets	-------	-------	32	-------	-------	-------	3	-------
Otter trawls, shrimp	-------	-------	-------	-------	-------	-------	127	1
Yards at mouth	-------	-------	-------	-------	-------	-------	3, 121	23
Pots:								
Crab	-------	-------	-------	-------	209	-------	-------	-------
Eel	-------	-------	-------	-------	-------	73	-------	-------
Fish	-------	1, 245	400	-------	-------	-------	-------	-------
Dredges, scallop	-------	-------	-------	-------	1	-------	-------	-------
Yards at mouth	-------	-------	-------	-------	1	-------	-------	-------
Tongs, oyster	-------	-------	-------	-------	14	-------	-------	-------
Grabs	-------	-------	-------	-------	3	-------	-------	-------
Hooks, sponge	-------	-------	-------	-------	88	-------	-------	-------
Diving outfits	-------	-------	-------	-------	59	-------	-------	-------

Item	Santa Rosa	Sarasota	Seminole	Taylor	Volusia	Wakulla	Walton
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	-------	-------	-------	-------	11	-------	-------
On boats and shore:							
Regular	17	137	45	83	109	124	7
Casual	10	58	95	22	51	179	6
Total	27	195	140	105	171	303	13
Vessels, motor	-------	-------	-------	-------	3	-------	-------
Net tonnage	-------	-------	-------	-------	35	-------	-------
Boats:							
Motor	7	89	10	11	17	47	5
Other	14	133	109	63	150	133	12
Apparatus:							
Haul seines	-------	9	13	-------	11	15	-------
Length, yards	-------	2, 680	6, 150	-------	6, 515	4, 680	-------
Gill nets, runaround	-------	127	-------	30	26	109	-------
Square yards	-------	113, 000	-------	12, 000	20, 500	49, 900	-------
Trammel nets	7	4	-------	18	-------	107	5
Square yards	3, 100	9, 000	-------	7, 200	-------	48, 300	2, 600
Lines:							
Hand	-------	58	-------	35	32	53	-------
Hooks	-------	58	-------	35	32	53	-------
Troll	-------	59	-------	10	-------	25	-------
Hooks	-------	62	-------	10	-------	25	-------

Fisheries of Florida, 1936—Continued

OPERATING UNITS: BY COUNTIES—Continued

Item	Santa Rosa	Sarasota	Seminole	Taylor	Volusia	Wakulla	Walton
Apparatus—Continued.							
Lines—Continued.	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Trot with baits or snoods	-	-	-	-	13	-	-
Baits or snoods	-	-	-	-	3, 850	-	-
Trot with hooks	-	-	95	-	-	-	-
Hooks	-	-	27, 250	-	-	-	-
Dip nets:							
Common	-	-	-	-	7	6	-
Drop	-	-	-	-	-	12	-
Cast nets	-	-	-	-	37	-	-
Otter trawls, shrimp	-	-	-	-	7	-	-
Yards at mouth	-	-	-	-	152	-	-
Pots, crab	-	-	-	-	-	1, 250	-
Spears	6	-	-	-	25	12	6
Tongs, oyster	22	2	-	-	32	8	2
Rakes, oyster	-	-	-	-	1	-	-
Forks	-	2	-	-	-	-	-
Hooks, sponge	-	-	-	20	-	-	-

CATCH: BY COUNTIES

Species	Bay		Brevard		Broward		Charlotte	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bluefish	155, 500	$4, 668	400	$24	16, 000	$840	16, 900	$676
Blue runner or hardtail	433. 600	4, 336	-	-	-	-	2, 000	40
Cabio or crab eater	-	-	-	-	-	-	1, 300	28
Cigarfish	7, 000	175	-	-	-	-	-	-
Crevalle	-	-	9, 000	160	-	-	-	-
Croaker	-	-	-	-	-	-	1, 700	30
Drum:								
Black	100	3	16, 400	317	-	-	-	-
Red or redfish	6, 500	195	37, 700	1, 414	-	-	84, 800	2, 120
Flounders	6, 900	207	-	-	-	-	1, 500	29
Groupers	1, 491, 300	43, 406	-	-	5, 000	250	8, 700	207
Jewfish	-	-	-	-	-	-	1, 500	35
Kingfish or "king mackerel"	6, 000	180	-	-	75, 000	4, 500	6, 400	304
King whiting or "kingfish"	-	-	3, 600	62	-	-	5, 900	124
Menhaden	2, 000	50	85, 000	550	-	-	-	-
Mojarra	-	-	-	-	-	-	19, 000	278
Mullet	1, 124, 400	33, 672	1, 288, 700	37, 960	352, 000	7, 060	2, 150, 400	64, 512
Permit	-	-	-	-	-	-	2, 400	46
Pigfish	-	-	-	-	-	-	3, 800	76
Pinfish or sailors choice	-	-	16, 600	312	-	-	-	-
Pompano	10, 400	1, 430	12, 400	2, 575	14, 000	2, 520	25, 000	5, 000
Porgies	4, 000	120	-	-	-	-	-	-
Sharks	-	-	100, 000	400	-	-	-	-
Sheepshead	3, 200	96	23, 100	438	-	-	68, 500	1, 370
Snapper:								
Mangrove	-	-	-	-	-	-	31, 100	775
Red	902, 800	55, 368	-	-	-	-	-	-
Snook or sergeantfish	-	-	4, 000	60	-	-	57, 000	1, 969
Spadefish	1, 500	45	-	-	-	-	-	-
Spanish mackerel	976, 000	30, 110	-	-	6, 000	300	105, 600	4, 583
Spot	2, 200	45	22, 100	473	-	-	1, 900	24
Squeteagues or "sea trout":								
Spotted	98, 800	5, 180	314, 500	20, 320	-	-	314, 800	17, 928
White	-	-	-	-	-	-	300	10
Tenpounder	14, 000	350	-	-	-	-	-	-
Tripletail	-	-	-	-	-	-	500	10
Crabs:								
Hard	13, 400	181	707, 200	14, 144	-	-	-	-
Stone	-	-	-	-	-	-	2, 000	340
Sea crawfish or spiny lobster	-	-	-	-	20, 000	1, 600	-	-
Clams, hard, public	-	-	-	-	-	-	800	100
Oysters, market:								
Public, spring	34, 700	4, 380	-	-	-	-	700	90
Public, fall	46, 000	6, 720	-	-	-	-	1, 000	130
Scallops, bay	48, 800	4, 270	-	-	-	-	-	-
Total	5, 389, 100	195, 187	2, 640. 700	79, 209	488, 000	17, 070	2, 915, 500	100, 834

Fisheries of Florida, 1936—Continued

CATCH: By counties—Continued

Species	Citrus		Clay		Collier		Dade	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bluefish	16,900	$676			22,500	$1,125	36,000	$2,670
Blue runner or hardtail					400	8	26,000	780
Catfish and bullheads			76,000	$3,380				
Crappie			1,500	60				
Crevalle					7,500	150	6.200	186
Dolphin							5,000	100
Drum:								
Black							26.400	790
Red or redfish	87,400	2,969			115,900	3,710		
Flounders					4,200	120		
Groupers					28,200	640	159,800	8,000
Grunts							32,000	960
Hogfish							10,000	300
Jewfish							10.000	300
Kingfish or "king mackerel"					77,500	3,100	395,000	17,800
King whiting or "kingfish"					1,700	35		
Mojarra					34,100	682	51,300	1,540
Mullet	2,015,000	80,524			4,558,800	148,185	1,136,000	32,500
Muttonfish							84,000	6,720
Permit					9,200	184		
Pigfish	200	7			1,500	30		
Pompano	300	60			239,800	47,960	33,000	8,000
Shad			7,000	840				
Sheepshead	34,300	1,201			187,600	3,754	26,000	780
Snapper, mangrove	28,000	980			45,000	1,668	12,400	930
Snook or sergeantfish					207,700	8,066	27,000	810
Spadefish					5,200	105		
Spanish mackerel	300	15			970,900	44,578	621.000	31,000
Squeteagues or "sea trout":								
Spotted	268,000	18,510			438,700	28,364	27,000	1,890
White					500	30		
Sunfish			12,000	480				
Yellowtail							10,000	300
Crabs:								
Hard			215,000	3,170				
Stone							10,000	3,000
Sea crawfish or spiny lobster							188,600	12,550
Clams, hard, public					589,800	36,860		
Oysters, market:								
Public, spring	40,800	1,910						
Public, fall	25,900	1.300						
Private, spring	20,400	956						
Private, fall	2,400	118						
Total	2,539,900	109,226	311,500	7,930	7,546,700	329,354	2,932,700	131,906

Species	Dixie		Duval		Escambia		Franklin	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bluefish	10,100	$374	1,700	$100	62,100	$1,242	11,600	$389
Blue runner or hardtail					4,700	71		
Catfish and bullheads			145,000	5,540			29,800	1,192
Crevalle			7,000	280				
Croaker			2,500	100				
Drum:								
Black			3,000	150	500	10		
Red or redfish	78,500	2,728	11,200	745	7,500	225	31,600	949
Flounders	9,600	288	56,300	2,825	300	9	9,700	299
Groupers	200	7	8,400	328	1,642,800	43,124	560,100	16,201
Kingfish or "king mackerel"	21,000	735	40,000	2,400			1,000	20
King whiting or "kingfish"			272,300	4,021	400	16	500	15
Menhaden							3,000	90
Mullet	709,000	24,810	234,700	9,350	270,400	8.112	1,417.100	42,513
Pigfish	5,200	156						
Pompano	2,500	476	4,100	680	33,900	6,780	4,100	615
Porgies					4,000	120	1,500	45
Sea bass			61,000	2,760				
Sea catfish					2,500	50	91,400	1,828
Shad			74,700	8,960				
Sheepshead	13,900	490			2,000	60	6,800	204
Snapper:								
Mangrove	3,600	125						
Red			65,500	4,588	2,863,200	172,272	482,700	32,302
Spanish mackerel	24,500	1,176	27,400	1,970	353,000	9,225	60,900	2,436
Spot	8,500	255	5,000	225	2,500	50	4,700	120
Squeteagues or "sea trout":								
Spotted	369,000	25,830	71,500	5,870	17,000	1,190	79,600	4,459
White					2,000	80		

Fisheries of Florida, 1936—Continued

CATCH: BY COUNTIES—Continued

Species	Dixie		Duval		Escambia		Franklin	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Sturgeon	21, 000	$2, 310	----	----	----	----	3, 500	$740
Tenpounder	----	----	----	----	----	----	6, 000	180
Crabs, hard	----	----	989, 000	$12, 640	3, 000	$108	375, 700	3, 779
Shrimp	----	----	2, 015, 700	60, 498	36, 000	1, 440	1, 753, 000	52, 590
Oysters, market:								
Public, spring	800	37	1, 500	75	2, 800	200	349, 700	17, 906
Public, fall	----	----	----	----	3, 600	300	263, 400	18, 520
Private, spring	----	----	3, 800	170	----	----	----	----
Private, fall	----	----	6, 100	275	----	----	----	----
Sponges:								
Grass	1, 000	990	----	----	----	----	----	----
Sheepswool	1, 700	4, 632	----	----	----	----	----	----
Yellow	900	833	----	----	----	----	----	----
Total	1, 281, 000	66, 252	4, 107, 400	124, 550	5, 314, 200	244, 684	5, 547, 400	197, 392

Species	Glades		Gulf		Hendry		Hernando	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bluefish	----	----	72, 500	$1, 817	----	----	2, 000	$100
Catfish and bullheads	542, 900	$12, 388	----	----	49, 000	$1, 260	----	----
Crappie	151, 100	3, 653	----	----	5, 000	123	----	----
Drum, red or redfish	----	----	1, 200	36	----	----	3, 000	90
Flounders	----	----	6, 300	189	----	----	----	----
Kingfish or "king mackerel"	----	----	200	6	----	----	----	----
Menhaden	----	----	3, 380, 000	6, 760	----	----	----	----
Mullet	----	----	631, 000	18, 930	----	----	100, 000	3, 000
Pompano	----	----	4, 900	882	----	----	----	----
Sea catfish	----	----	3, 500	70	----	----	----	----
Sheepshead	----	----	1, 900	48	----	----	1, 500	45
Snapper, mangrove	----	----	----	----	----	----	1, 000	30
Spanish mackerel	----	----	215, 500	7, 542	----	----	----	----
Squeteagues or "sea trout," spotted	----	----	44, 000	2, 640	----	----	2, 500	150
Sunfish	144, 700	3, 533	----	----	25, 000	573	----	----
Oysters, market:								
Public, spring	----	----	7, 500	480	----	----	----	----
Public, fall	----	----	24, 000	1, 500	----	----	----	----
Scallops, bay	----	----	134, 400	15, 280	----	----	----	----
Turtles, soft shell	24, 000	480	----	----	9, 000	135	----	----
Total	862, 700	20, 054	4, 526, 900	56, 180	88, 000	2, 091	110, 000	3, 415

Species	Hillsborough		Indian River		Lee		Levy	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Angelfish	----	----	----	----	----	----	1, 500	$45
Bluefish	----	----	90, 700	$5, 310	24, 600	$1, 230	10, 100	501
Blue runner or hardtail	----	----	----	----	5, 600	112	2, 300	72
Cabio or crab eater	----	----	----	----	2, 600	52	1, 000	35
Crevalle	1, 000	$10	10, 000	150	3, 400	68	----	----
Croaker	----	----	----	----	2, 100	42	----	----
Drum:								
Black	1, 500	15	22, 000	390	700	14	2, 500	50
Red or redfish	49, 000	1, 715	37, 200	1, 116	134, 700	4, 041	52, 600	1, 797
Flounders	100	6	----	----	4, 000	80	3, 100	109
Groupers	263, 500	9, 361	2, 500	100	33, 000	812	2, 300	81
Jewfish	----	----	----	----	4, 100	100	500	10
Kingfish or "king mackerel"	----	----	----	----	58, 000	2, 320	80, 300	3, 613
King whiting or "kingfish"	----	----	10, 000	150	7, 700	154	----	----
Mojarra	----	----	4, 000	120	53, 500	1, 070	----	----
Mullet	613, 000	21, 360	700, 500	13, 960	3, 748, 200	113, 384	905, 500	31, 642
Permit	----	----	----	----	4, 500	90	----	----
Pigfish	----	----	----	----	7, 300	146	----	----
Pinfish or sailors choice	----	----	10, 000	150	----	----	----	----
Pompano	2, 700	488	10, 000	2, 066	26, 400	5, 280	7, 700	1, 540
Sheepshead	25, 500	765	9, 200	198	164, 500	3, 289	28, 900	1, 011
Snapper:								
Mangrove	1, 000	50	----	----	49, 400	1, 482	4, 800	167
Red	282, 000	20, 457	5, 200	312	----	----	2, 000	120
Snook or sergeantfish	6, 000	201	14, 000	600	103, 400	4, 136	----	----
Spadefish	----	----	----	----	4, 800	96	----	----
Spanish mackerel	20, 500	820	71, 600	2, 448	146, 700	7, 335	14, 600	650
Spot	24, 000	240	22, 000	510	1, 700	18	----	----

Fisheries of Florida, 1936—Continued

CATCH: BY COUNTIES—Continued

Species	Hillsborough		Indian River		Lee		Levy	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Squeteagues or "sea trout":								
Spotted	51, 400	$3, 568	176, 300	$10, 560	410, 600	$27, 420	235, 800	$16,506
White	6, 300	220	----	----	1, 000	49	----	----
Crabs:								
Hard	11, 200	220	36, 000	360	400, 100	7, 002	12, 500	250
Stone	----	----	----	----	----	----	3, 800	500
Clams, coquina	----	----	----	----	4, 300	720	----	----
Oysters, market:								
Public, spring	----	----	7, 600	1, 600	----	----	2, 100	131
Public, fall	----	----	----	----	----	----	300	19
Private, spring	4, 000	600	----	----	----	----	----	----
Private, fall	1, 300	200	----	----	----	----	----	----
Scallops, bay	----	----	----	----	67, 000	6, 285	----	----
Turtles, green	----	----	----	----	----	----	1, 000	60
Total	1, 364, 000	60, 296	1, 238, 800	40, 100	5, 473, 900	186, 827	1, 375, 200	58, 909

Species	Manatee		Martin		Monroe		Nassau	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bluefish	19, 300	$772	695, 300	$45, 470	4, 900	$395	900	$54
Blue runner or hardtail	2, 200	44	----	----	7, 000	70	----	----
Cabio or crab eater	200	6	----	----	----	----	----	----
Crevalle	8, 500	155	77, 700	1, 240	----	----	----	----
Croaker	700	17	27, 000	540	----	----	----	----
Drum:								
Black	5, 000	170	74, 000	1, 520	----	----	900	36
Red or redfish	20, 000	605	32, 800	746	14, 600	438	1, 100	55
Flounders	1, 300	30	10, 400	520	----	----	54, 600	2, 811
Groupers	15, 000	400	20, 000	1, 000	58, 600	2, 344	----	----
Grunts	----	----	----	----	23, 000	460	----	----
Hogfish	----	----	----	----	3, 000	90	----	----
Jewfish	----	----	13. 800	207	3, 900	273	----	----
Kingfish or "king mackerel"	11, 700	321	23, 000	1, 030	442, 000	17, 680	----	----
King whiting or "kingfish"	400	10	----	----	----	----	504, 600	9, 054
Menhaden	----	----	26, 800	268	----	----	65, 370, 000	261, 490
Mojarra	8, 600	178	88, 300	1, 760	----	----	----	----
Mullet	1, 134, 700	33, 082	559, 900	11, 415	62, 400	1, 875	7, 600	304
Muttonfish	----	----	25, 000	2, 000	21, 000	1, 260	----	----
Pigfish	500	5	44, 000	880	----	----	----	----
Pompano	29, 300	5, 506	93, 600	22, 860	4, 000	1, 000	----	----
Porgies	600	18	----	----	9, 000	180	----	----
Shad	----	----	----	----	----	----	27, 500	4, 025
Sharks	560, 000	1, 800	80, 000	320	297, 000	750	----	----
Sheepshead	65, 500	1, 965	44, 800	896	3, 000	60	----	----
Snapper, mangrove	2, 200	57	4, 000	200	44, 200	2, 652	----	----
Snook or sergeantfish	9, 500	306	95, 800	4, 370	----	----	----	----
Spadefish	1, 100	33	----	----	----	----	----	----
Spanish mackerel	129, 400	6, 076	62, 100	2, 955	215, 000	9, 675	----	----
Spot	5, 000	50	31, 000	620	----	----	9, 300	372
Squeteagues or "sea trout":								
Spotted	177, 900	11, 084	24, 500	1, 702	----	----	17, 800	1, 246
White	54, 400	2, 216	----	----	----	----	----	----
Tripletail	----	----	36, 800	550	----	----	----	----
Yellowtail	----	----	----	----	86, 600	5, 196	----	----
Crabs:								
Hard	----	----	----	----	----	----	243, 000	4, 860
Stone	1, 100	190	----	----	7, 100	600	----	----
Sea crawfish or spiny lobster	----	----	----	----	116, 000	5, 800	----	----
Shrimp	----	----	----	----	----	----	5, 666, 500	170, 415
Clams, hard, public	6, 000	650	----	----	----	----	----	----
Conchs	----	----	----	----	7, 800	624	----	----
Oysters, market:								
Private, spring	----	----	----	----	----	----	21, 900	985
Private, fall	----	----	----	----	----	----	39, 100	1, 750
Scallops, bay	6, 800	478	----	----	----	----	----	----
Turtles, green	----	----	----	----	6, 000	360	----	----
Sponges:								
Grass	----	----	----	----	5, 400	1, 147	----	----
Sheepswool	----	----	----	----	43, 900	58, 021	----	----
Yellow	----	----	----	----	20, 600	6, 448	----	----
Total	2, 276, 900	66, 224	2, 190. 600	103, 069	1, 506, 000	117, 398	71, 964, 800	457, 457

Fisheries of Florida, 1936—Continued

CATCH: BY COUNTIES—Continued

Species	Okaloosa		Okeechobee		Palm Beach		Pasco	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bluefish	64, 500	$1, 935			1, 365, 200	$69, 174	11, 500	$575
Blue runner or hardtail	72, 000	1, 110			32, 200	640		
Catfish and bullheads			1, 094, 200	$43, 800	28, 000	840		
Cigarfish	4, 000	80						
Crappie			111, 000	4, 160	35, 000	1, 050		
Crevalle					10, 900	255		
Croaker					5, 000	100		
Drum:								
Black	800	20			6, 500	130		
Red or redfish	3, 000	90			11, 100	290	8, 000	280
Flounders	6, 100	148						
Groupers	290, 600	8, 518			23, 400	795	2, 500	87
Grunts					2, 300	79		
Jewfish					5, 000	150		
Kingfish or "king mackerel"					2, 336, 000	93, 460		
King whiting or "kingfish"					5, 000	100		
Menhaden	8, 000	160						
Mojarra					71, 300	2, 176		
Moonfish					2, 500	75		
Mullet	844, 000	17, 965			91, 000	2, 730	707, 300	21, 219
Muttonfish					35, 500	1, 550		
Pinfish or sailors choice					6, 500	130		
Pompano	43, 000	8, 600			71, 700	16, 013	100	20
Porgies	5, 000	150						
Sea catfish	300	6						
Sheepshead	2, 000	60			17, 100	402	6, 000	210
Snapper:								
Mangrove					1, 700	93	4, 700	165
Red	208, 700	12, 882						
Snook or sergeantfish					33, 300	1, 395		
Spanish mackerel	883, 900	26, 517			1, 662, 300	58, 600	7, 900	375
Squeteagues or "sea trout," spotted	5, 700	399			11, 100	770	67, 600	4, 056
Sturgeon	5, 000	500						
Sunfish			89, 200	3, 360				
Swellfish					800	40		
Tenpounder	21, 000	420						
Yellowtail					1, 000	40		
Sea crawfish or spiny lobster					2, 000	140		
Turtles, soft shell			45, 000	675	300	6		
Total	2, 467, 600	79, 560	1, 339, 400	51, 995	5, 873, 700	251, 223	815, 600	26, 987

Species	Pinellas		Putnam		St. Johns		St. Lucie	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives			231, 500	$1, 158				
Amberjack	13, 400	$365						
Bluefish	75, 700	4, 281			17, 000	$1, 020	935, 500	$46, 800
Blue runner or hardtail	700	21					2, 500	37
Cabio or crab eater	800	22						
Catfish and bullheads			1, 783, 900	62, 066				
Crappie			129, 400	5, 512				
Crevalle							37, 000	550
Drum:								
Black					25, 000	750	2, 500	37
Red or redfish	51, 500	1, 793			39, 200	1, 568	21, 300	640
Eels, common			19, 400	582				
Flounders	8, 700	342			94, 600	4, 755	1, 100	55
Groupers	208, 500	5, 802					15, 300	605
Grunts					1, 400	28		
Hickory shad			42, 000	920				
Kingfish or "king mackerel"	191, 400	6, 802			4, 200	100	68, 900	3, 440
King whiting or "kingfish"					963, 100	16, 524	9, 900	148
Mojarra							15, 000	225
Mullet	1, 613, 800	55, 869	1, 100	33	158, 000	5, 590	364, 000	7, 280
Pigfish					1, 400	28	2, 500	37
Pompano	10, 800	2, 212			3, 000	750	6, 800	1, 350
Porgies	7, 700	231						
Sea bass					1, 400	84		
Shad			167, 600	12, 726				
Sheepshead	51, 800	1, 999			3, 500	105	2, 500	38
Snapper:								
Mangrove	6, 200	299						
Red	62, 700	4, 220					9, 500	570
Snook or sergeantfish	4, 000	150					23, 100	925
Spadefish	7, 100	426						

Fisheries of Florida, 1936—Continued

CATCH: BY COUNTIES—Continued

Species	Pinellas		Putnam		St. Johns		St. Lucie	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Spanish mackerel	673,000	$34,495			4,900	$245	1,304,600	$65,200
Spot	1,000	10	200	$8			37,000	555
Squeteagues or "sea trout":								
Spotted	361,500	23,098			16,200	1,134	55,400	2,725
White	15,300	916						
Sunfish			289,200	7,967				
Tenpounder	5,900	120						
Yellowtail	12,000	720						
Crabs, stone	6,000	1,400						
Shrimp					10,659,800	321,432	113,800	3,411
Clams, hard, public	8,800	1,100			27,400	2,343		
Oysters, market:								
Public, spring					94,000	3,693		
Public, fall					23,600	936		
Private, spring	15,300	595			2,400	90		
Private, fall	20,300	790			1,000	40		
Scallops, bay	65,900	5,433						
Turtles:								
Green	11,700	1,755						
Soft shell			16,600	300				
Sponges:								
Grass	11,400	11,314						
Sheepswool	307,500	911,962						
Wire	8,400	6,582						
Yellow	71,400	68,940						
Total	3,910,200	1,154,064	2,680,900	91,272	12,141,100	361,215	3,028,200	134,628

Species	Santa Rosa		Sarasota		Seminole		Taylor	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bluefish			700	$35			10,200	$510
Blue runner or hardtail	300	$6	7,000	230				
Catfish and bullheads					284,000	$9,940		
Crappie					14,800	590		
Croaker			1,000	15				
Drum, red, or redfish	800	24	68,800	2,034			12,500	436
Flounders	1,600	48	8,000	305			2,600	90
Groupers			3,500	85			2,000	70
Kingfish or "king mackerel"			79,500	2,930			15,000	450
King whiting or "kingfish"			3,500	70				
Mojarra			7,000	140				
Mullet	160,000	4,800	1,050,700	31,521			385,000	13,325
Pigfish			3,500	70			1,300	39
Pompano			6,900	1,380			900	180
Porgies			5,000	100				
Shad					5,200	213		
Sheepshead	500	15	81,000	1,620			4,000	139
Snapper, mangrove			3,900	111				
Snook or sergeantfish			20,500	510				
Spanish mackerel			344,000	13,760			10,000	500
Spot			5,000	50			1,000	34
Squeteagues or "sea trout":								
Spotted	2,500	175	169,100	9,896			127,000	8,320
White	300	12	9,000	270				
Sunfish					35,600	968		
Crabs, stone			600	175				
Clams, hard, public			1,400	127				
Oysters, market:								
Public, spring	11,900	1,604	1,000	50				
Public, fall	10,900	1,650	1,500	75				
Scallops, bay			9,200	777				
Sponges:								
Grass							5,000	4,950
Sheepswool							8,500	25,160
Yellow							4,200	4,066
Total	188,800	8,334	1,891,300	66,336	339,600	11,711	589,200	58,269

Fisheries of Florida, 1936—Continued

CATCH: BY COUNTIES—Continued

Species	Volusia		Wakulla		Walton	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bluefish	17,500	$1,050	16,600	$643		
Catfish and bullheads	315,200	7,880				
Crappie	15,200	610				
Crevalle	5,000	100				
Drum:						
Black	9,000	220				
Red or redfish	41,100	1,850	94,500	3,275	1,100	$38
Flounders	43,600	2,580	18,300	701	1,400	53
Groupers	6,000	240	11,000	330		
Kingfish or "king mackerel"			12,000	300		
King whiting or "kingfish"	67,900	1,956				
Mullet	371,500	10,115	1,811,000	66,660	85,000	3,025
Pompano	11,000	2,820	1,400	270		
Sea bass	15,000	900				
Shad	500	34				
Sheepshead	5,000	100	31,000	1,127	100	3
Snapper, red	60,000	5,400				
Spanish mackerel			24,100	1,282		
Spot	20,000	530	4,400	146		
Squeteagues or "sea trout," spotted	73,500	4,150	132,800	9,293	20,000	1,400
Sunfish	81,700	2,030				
Crabs:						
Hard	138,000	2,760	4,900	162		
Stone			14,200	2,565		
Shrimp	480,100	18,657				
Oysters, market:						
Public, spring	44,500	1,350	7,700	437	2,400	360
Public, fall	47,400	1,505	13,500	853	1,200	180
Private, spring	97,800	5,230				
Private, fall	65,300	1,978				
Turtles, soft shell	5,000	50				
Total	2,036,800	74,095	2,197,400	88,044	111,200	5,059

CATCH: BY DISTRICTS

Species	East coast		West coast		Lake Okeechobee	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Alewives	231,500	$1,158				
Amberjack			13,400	$365		
Angelfish			1,500	45		
Bluefish	3,176,200	172,512	608,200	21,944		
Blue runner or hardtail	60,700	1,457	537,800	6,120		
Cabio or crab eater			5,900	143		
Catfish and bullheads	2,604,100	88,806	29,800	1,192	1,714,100	$58,288
Cigarfish			11,000	255		
Crappie	160,900	6,772			302,100	8,986
Crevalle	162,800	2,921	20,400	383		
Croaker	34,500	740	5,500	104		
Dolphin	5,000	100				
Drum:						
Black	185,700	4,340	11,100	282		
Red or redfish	232,700	8,424	927,500	29,588		
Eels, common	19,400	582				
Flounders	260,600	13,546	93,700	3,053		
Groupers	240,400	11,318	4,621,800	131,475		
Grunts	35,700	1,067	23,000	460		
Hickory shad	42,000	920				
Hogfish	10,000	300	3,000	90		
Jewfish	28,800	657	10,000	418		
Kingfish or "king mackerel"	2,942,100	122,730	1,002,000	38,761		
King whiting or "kingfish"	1,836,400	32,015	20,100	424		
Menhaden	65,481,800	262,308	3,393,000	7,060		
Mojarra	229,900	5,821	122,200	2,348		
Moonfish	2,500	75				
Mullet	5,265,000	138,297	26,096,700	839,985		
Muttonfish	144,500	10,270	21,000	1,260		
Permit			16,100	320		
Pigfish	47,900	945	23,300	529		
Pinfish or sailors choice	33,100	592				
Pompano	259,600	59,634	454,100	89,679		
Porgies			36,800	964		
Sea bass	77,400	3,744				
Sea catfish			97,700	1,954		
Shad	282,500	26,798				
Sharks	180,000	720	857,000	2,550		

Fisheries of Florida, 1936—Continued

CATCH: BY DISTRICTS—Continued

Species	East coast		West coast		Lake Okeechobee	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Sheepshead	131,200	$2,957	783,500	$19,531	--------	--------
Snapper:						
Mangrove	18,100	1,223	225,100	8,561	--------	--------
Red	140,200	10,870	4,804,100	297,621	--------	--------
Snook or sergeantfish	197,200	8,160	408,100	15,338	--------	--------
Spadefish	--------	--------	19,700	705	--------	--------
Spanish mackerel	3,759,900	162,718	5,175,800	201,150	--------	--------
Spot	146,600	3,293	61,900	1,042	--------	--------
Squeteagues or "sea trout":						
Spotted	787,800	50,367	3,394,300	219,466	--------	--------
White	--------	--------	89,100	3,803	--------	--------
Sturgeon	--------	--------	29,500	3,550	--------	--------
Sunfish	418,500	11,445	--------	--------	258,900	$7,466
Swellfish	800	40	--------	--------	--------	--------
Tenpounder	--------	--------	46,900	1,070	--------	--------
Tripletail	36,800	550	500	10	--------	--------
Yellowtail	11,000	340	98,600	5,916	--------	--------
Crabs:						
Hard	2,355,600	40,277	820,800	11,702	--------	--------
Stone	10,000	3,000	34,800	5,770	--------	--------
Sea crawfish or spiny lobster	210,600	14,290	116,000	5,800	--------	--------
Shrimp	18,935,900	574,413	1,789,000	54,030	--------	--------
Clams:						
Coquina	--------	--------	4,300	720	--------	--------
Hard, public	--------	--------	606,800	38,837	--------	--------
Conchs	--------	--------	7,800	624	--------	--------
Oysters, market:						
Public, spring	147,600	6,718	462,100	27,585	--------	--------
Public, fall	71,000	2,441	391,300	31,247	--------	--------
Private, spring	125,900	6,475	39,700	2,151	--------	--------
Private, fall	111,500	4,043	24,000	1,108	--------	--------
Scallops, bay	--------	--------	332,100	32,523	--------	--------
Turtles:						
Green	--------	--------	18,700	2,175	--------	--------
Soft shell	21,600	350	--------	--------	78,300	1,296
Sponges:						
Grass	--------	--------	22,800	18,401	--------	--------
Sheepswool	--------	--------	361,600	999,775	--------	--------
Wire	--------	--------	8,400	6,582	--------	--------
Yellow	--------	--------	97,100	80,287	--------	--------
Total	111,911,500	1,883,539	59,338,000	3,278,831	2,353,400	76,036

Sponge Fishery of Florida, 1936

OPERATING UNITS: BY GEAR

Item	Sponge hooks	Diving outfits	Total
	Number	*Number*	*Number*
Fishermen:			
On vessels	--------	30	30
On boats and shore, regular	368	448	816
Total	368	478	846
Vessels, motor	--------	3	3
Net tonnage	--------	19	19
Boats:			
Motor	--------	56	56
Other	254	--------	254
Apparatus, number	254	59	313

CATCH: BY GEAR

Sponges	Sponge hooks		Diving outfits		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Grass	22,800	$18,401	--------	--------	22,800	$18,401
Sheepswool	74,100	146,108	287,500	$853,667	361,600	999,775
Wire	--------	--------	8,400	6,582	8,400	6,582
Yellow	34,500	19,778	62,600	60,509	97,100	80,287
Total	131,400	184,287	358,500	920,758	489,900	1,105,045

SPONGES SOLD AT THE EXCHANGE, TARPON SPRINGS, FLA.

During 1936 sponges sold on the exchange at Tarpon Springs, Fla., amounted to 418,839 pounds, valued at $1,035,429. This is an increase of 8 percent in quantity and 67 percent in value as compared with the transactions during 1935. Of the total sponges sold on the exchange during 1936, 92,816 pounds, valued at $371,994, were large wool; 26,572 pounds, valued at $67,156, were medium and small wool; 197,152 pounds, valued at $498,604, were wool rags; 76,470 pounds, valued at $73,839, were yellow; 17,423 pounds, valued at $17,254, were grass; and 8,406 pounds, valued at $6,582, were wire. It is estimated that sponges valued at $4,000 were sold outside of the exchange.

ALABAMA

Fisheries of Alabama, 1936

OPERATING UNITS: BY GEAR

Item	Haul seines	Gill nets		Trammel nets	Lines		
		Run-around	Stake		Hand	Trot with baits or snoods	Trot with hooks
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels					66		
On boats and shore:							
Regular	36	15	3	163	20	63	33
Casual			2	11	17	25	
Total	36	15	5	174	103	88	33
Vessels, motor					9		
Net tonnage					114		
Boats:							
Motor	6	5	1	53	9	27	3
Other	7	7	4	130	18	49	33
Apparatus:							
Number	6	7	8	131	103	95	84
Length, yards	4,500						
Square yards		5,400	2,000	45,200			
Hooks, baits, or snoods					169	32,950	25,500

Item	Fyke nets	Otter trawls, shrimp	Pots, fish	Spears	Dredges, oyster	Tongs, oyster	By hand, other than for oysters	Total, exclusive of duplication
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels		55			21	6		132
On boats and shore:								
Regular	2	262	17	19	8	201	15	644
Casual				30		25	19	102
Total	2	317	17	49	29	232	34	878
Vessels, motor		26			6	3		38
Net tonnage		269			98	25		414
Boats:								
Motor	2	131	3		4	70		268
Other			16	2		93		281
Apparatus:								
Number	12	157	65	49	13	227		
Yards at mouth		1,898			13			

Fisheries of Alabama, 1936—Continued

CATCH: BY GEAR

Species	Haul seines		Gill nets				Trammel nets	
			Runaround		Stake			
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bluefish	66,900	$3,134	1,100	$44			4,000	$200
Blue runner or hardtail	16,700	490						
Buffalofish							13,000	520
Catfish and bullheads							1,000	60
Croaker	2,700	54					14,100	282
Drum:								
Black	1,700	42					200	5
Red or redfish	12,800	819	1,300	91			15,300	1,085
Flounders	1,100	88	500	35			10,100	773
King whiting or "kingfish"	200	6					800	24
Mullet	931,700	26,951	38,000	1,140			2,616,300	83,347
Pompano	1,400	280					5,200	1,040
Sea catfish	800	16					900	28
Sheepshead, salt water	8,200	313					14,700	669
Spanish mackerel	27,700	1,565	45,000	3,150			200	10
Spot							800	16
Squeteagues or "sea trout":								
Spotted	26,500	2,117	7,900	553			61,900	4,861
White	3,000	90					7,200	216
Sturgeon					1,600	$112		
Tenpounder	9,000	224						
Total	1,110,400	36,189	93,800	5,013	1,600	112	2,765,700	93,136

Species	Lines						Fyke nets		Otter trawls	
	Hand		Trot with baits or snoods		Trot with hooks					
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Buffalofish					22,700	$908	8,000	$320		
Catfish and bullheads	3,000	$180			55,000	3,300	4,000	240		
Croaker	700	14								
Drum, red or redfish	4,400	289								
Groupers	196,400	6,728								
Paddlefish or spoonbill cat					13,700	822				
Sea catfish	800	28			5,500	192				
Sheepshead:										
Fresh water							1,400	84		
Salt water	1,400	57								
Snapper, red	1,027,500	61,650								
Squeteagues or "sea trout":										
Spotted	9,500	783								
White	2,100	63								
Crabs, hard			997,200	$14,352						
Shrimp									1,868,700	$65,296
Total	1,245,800	69,792	997,200	14,352	96,900	5,222	13,400	644	1,868,700	65,296

Species	Pots		Spears		Dredges		Tongs		By hand	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Catfish and bullheads	38,500	$2,310								
Flounders			25,200	$1,986						
Crabs, soft and peelers									600	$200
Oysters, market:										
Public, spring					128,700	$6,435	561,400	$30,367		
Public, fall					40,500	2,225	230,400	19,110		
Private, spring							10,500	875		
Private, fall							20,300	1,875		
Terrapin, diamond back									3,200	320
Total	38,500	2,310	25,200	1,986	169,200	8,660	822,600	52,227	3,800	520

Fisheries of Alabama, 1936—Continued

OPERATING UNITS: BY COUNTIES

Item	Baldwin	Mobile
	Number	*Number*
Fishermen:		
On vessels	10	122
On boats and shore:		
Regular	139	505
Casual	23	79
Total	172	706
Vessels, motor	5	33
Net tonnage	43	371
Boats:		
Motor	53	215
Other	79	202
Apparatus:		
Haul seines	1	5
Length, yards	1,000	3,500
Gill nets:		
Runaround	7	----------
Square yards	5,400	----------
Stake	8	----------
Square yards	2,000	----------
Apparatus—Continued		
Trammel nets	50	81
Square yards	16,600	28,600
Lines:		
Hand	4	99
Hooks	4	165
Trot with baits or snoods	1	94
Baits or snoods	200	32,750
Trot with hooks	34	50
Hooks	11,500	14,000
Fyke nets	----------	12
Otter trawl, shrimp	14	143
Yards at mouth	169	1,729
Pots, fish	12	53
Spears	13	36
Dredges, oyster	5	8
Yards at mouth	5	8
Tongs, oyster	35	192

CATCH: BY COUNTIES

Species	Baldwin		Mobile	
	Pounds	*Value*	*Pounds*	*Value*
Bluefish	1,300	$50	70,700	$3,328
Blue runner or hardtail	600	18	16,100	472
Buffalofish	10,700	428	33,000	1,320
Catfish and bullheads	30,500	1,830	71,000	4,260
Croaker	7,000	140	10,500	210
Drum:				
Black	1,100	27	800	20
Red or redfish	12,800	886	21,000	1,398
Flounders	12,700	946	24,200	1,936
Groupers	----------	----------	196,400	6,728
King whiting or "kingfish"	----------	----------	1,000	30
Mullets	773,100	23,193	2,812,900	88,245
Paddlefish or spoonbill cat	7,700	462	6,000	360
Pompano	5,100	1,020	1,500	300
Sea catfish	2,000	70	6,000	194
Sheepshead:				
Fresh water	----------	----------	1,400	84
Salt water	7,200	273	17,100	766
Snapper, red	----------	----------	1,027,500	61,650
Spanish mackerel	49,800	3,534	23,100	1,191
Spot	200	4	600	12
Squeteagues or "sea trout":				
Spotted	40,400	2,908	65,400	5,406
White	----------	----------	12,300	369
Sturgeon	1,600	112	----------	----------
Tenpounder	1,100	27	7,900	197
Crabs:				
Hard	3,600	120	993,600	14,232
Soft and peelers	----------	----------	600	200
Shrimp	195,100	6,827	1,673,600	58,469
Oysters, market:				
Public, spring	25,900	1,860	664,200	34,942
Public, fall	82,300	6,065	188,600	15,270
Private, spring	10,500	875	----------	----------
Private, fall	20,300	1,875	----------	----------
Terrapin, diamond back	2,000	200	1,200	120
Total	1,304,600	53,750	7,948,200	301,709

MISSISSIPPI

Fisheries of Mississippi, 1936

OPERATING UNITS: BY GEAR

Item	Haul seines	Trammel nets	Lines		Dip nets, drop	Cast nets
			Hand	Trot with baits or snoods		
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels			24			
On boats and shore:						
Regular	38	60	75	191		3
Casual	2		74	31	11	78
Total	40	60	173	222	11	81
Vessels, motor			4			
Net tonnage			48			
Boats:						
Motor	9	22	9	43		
Other	1	43	102	135	7	2
Apparatus:						
Number	9	44	173	172	75	81
Length, yards	2,350					
Square yards		8,650				
Hooks, baits, or snoods			199	68,037		

Item	Otter trawls, shrimp	Spears	Dredges, oyster	Tongs, oyster	By hand, other than for oysters	Total, exclusive of duplication
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	320		512			686
On boats and shore:						
Regular	808	4	68	441		1,209
Casual		64		31	24	201
Total	1,128	68	580	472	24	2,096
Vessels:						
Motor	159		116			195
Net tonnage	1,796		1,641			2,397
Sail			12			12
Net tonnage			164			164
Total vessels	159		128			207
Total net tonnage	1,796		1,805			2,561
Boats:						
Motor	404		17	52		483
Other				417		503
Apparatus:						
Number	563	68	290	472		
Yards at mouth	7,228		290			

Fisheries of Mississippi, 1936—Continued

CATCH: BY GEAR

Species	Haul seines		Trammel nets		Lines			
					Hand		Trot with baits or snoods	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Croaker	300	$9	5,600	$168	5,600	$168		
Drum:								
Black	900	27	5,800	174	1,600	48		
Red or redfish	1,000	50	72,400	3,600	14,200	705		
Flounders	400	32	3,400	270				
Groupers					150,000	4,500		
King whiting or "kingfish"			3,100	93	2,000	60		
Mullet	10,000	300	320,500	9,615				
Pompano			800	120				
Sea catfish			14,300	286	11,800	236		
Sheepshead			22,700	913	1,700	69		
Snapper, red					324,900	19,494		
Squeteagues or "sea trout":								
Spotted	4,000	320	115,500	9,150	60,100	4,798		
White	7,500	225	54,600	1,738	51,500	1,645		
Tripletail					200	8		
Crabs, hard							1,997,900	$30,254
Shrimp:								
Mississippi	2,000	120						
Louisiana	500,000	13,500						
Total	526,100	14,583	618,700	26,127	623,600	31,731	1,997,900	30,254

Species	Dip nets, drop		Cast nets		Otter trawls		Spears	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Flounders					5,000	$400	22,100	$1,760
Mullet			24,000	$720				
Crabs, hard	13,100	$222						
Shrimp:								
Mississippi			1,000	60	1,741,800	47,510		
Louisiana					15,248,300	410,399		
Total	13,100	222	25,000	780	16,995,100	458,309	22,100	1,760

Species	Dredges		Tongs		By hand	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Crabs, soft and peelers					2,700	$518
Oysters, market:						
Public, spring, Mississippi	589,800	$36,749	937,800	$59,312		
Public, fall, Mississippi			177,400	17,037		
Public, spring, Louisiana	3,952,200	242,219	57,000	2,660		
Public, fall, Louisiana	44,100	2,759	12,600	1,125		
Total	4,586,100	281,727	1,184,800	80,134	2,700	518

Fisheries of Mississippi, 1936—Continued

OPERATING UNITS: BY COUNTIES

Item	Hancock	Harrison	Jackson
	Number	*Number*	*Number*
Fishermen:			
On vessels	22	645	19
On boats and shore:			
Regular	92	967	150
Casual	31	133	37
Total	145	1,745	206
Vessels:			
Motor	2	188	5
Net tonnage	27	2,296	74
Sail	4	8	----------
Net tonnage	53	111	----------
Total vessels	6	196	5
Total net tonnage	80	2,407	74
Boats:			
Motor	30	390	63
Other	54	355	94
Apparatus:			
Haul seines	----------	6	3
Length, yards	----------	1,950	400
Trammel nets	4	15	25
Square yards	1,100	3,150	4,400
Lines:			
Hand	23	99	51
Hooks	23	110	66
Trot with baits or snoods	----------	155	17
Baits or snoods	----------	49,587	18,450
Dip nets, drop	60	15	----------
Cast nets	10	60	11
Otter trawls, shrimp	24	493	46
Yards at mouth	294	6,372	562
Spears	10	42	16
Dredges, oyster	16	274	----------
Yards at mouth	16	274	----------
Tongs, oyster	51	340	81

CATCH: BY COUNTIES

Species	Hancock		Harrison		Jackson	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Croaker	2,000	$60	6,300	$189	3,200	$96
Drum:						
Black	1,900	57	4,100	123	2,300	69
Red or redfish	14,400	720	40,800	2,040	32,400	1,595
Flounders	3,000	240	21,900	1,752	6,000	470
Groupers	----------	----------	55,000	1,650	95,000	2,850
King whiting or "kingfish"	1,500	45	3,000	90	600	18
Mullet	18,000	540	81,000	2,430	255,500	7,665
Pompano	----------	----------	----------	----------	800	120
Sea catfish	1,400	28	21,000	420	3,700	74
Sheepshead	3,900	156	3,800	158	16,700	668
Snapper, red	----------	----------	95,000	5,700	229,900	13,794
Squeteagues or "sea trout":						
Spotted	31,000	2,480	108,000	8,640	40. 600	3,148
White	10,000	400	62,000	1,960	41,600	1,248
Tripletail	----------	----------	200	8	----------	----------
Crabs:						
Hard	10,800	180	1,865,500	28,035	134,700	2,261
Soft and peelers	----------	----------	2,700	518	----------	----------
Shrimp:						
Mississippi	35,000	945	1,610,200	44,156	99,600	2,589
Louisiana	637,100	17,201	13,851,700	372,692	1,259,500	34,006
Oysters, market:						
Public, spring, Mississippi	137,700	9,294	1,228,700	74,008	161,200	12,759
Public, fall, Mississippi	6,000	625	148,800	14,100	22,600	2,312
Public, spring, Louisiana	157,800	9,380	3,851,400	235,499	----------	----------
Public, fall, Louisiana	30,900	2,049	25,800	1,835	----------	----------
Total	1,102,400	44,400	23,086,900	796,003	2,405,900	85. 742

LOUISIANA

Fisheries of Louisiana, 1936

OPERATING UNITS: BY GEAR

Item	Haul seines	Gill nets, run-around	Trammel nets	Lines		Dip nets	
				Hand	Trot with baits or snoods	Common	Drop
	Number	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Fishermen:							
On vessels	-------	-------	-------	5	-------	-------	-------
On boats and shore:							
Regular	398	2	80	126	365	44	125
Casual	105	-------	9	151	556	9	108
Total	503	2	89	282	921	53	233
Vessels, motor	-------	-------	-------	1	-------	-------	-------
Net tonnage	-------	-------	-------	5	-------	-------	-------
Boats:							
Motor	69	1	42	71	72	-------	6
Other	82	1	11	128	849	41	217
Apparatus:							
Number	107	1	46	282	921	51	8, 694
Length, yards	18, 510	-------	-------	-------	-------	-------	-------
Square yards	-------	550	9, 355	-------	-------	-------	-------
Hooks, baits, or snoods	-------	-------	-------	287	218, 825	-------	-------

Item	Cast nets	Otter trawls, shrimp	Brush traps	Dredges, oyster	Tongs, oyster	By hand, other than for oysters	Total, exclusive of duplication
	Number	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Fishermen:							
On vessels	-------	297	-------	96	57	-------	403
On boats and shore:							
Regular	27	3, 346	102	51	677	-------	4, 480
Casual	40	6	-------	-------	12	10	932
Total	67	3, 649	102	147	746	10	5, 815
Vessels, motor	-------	147	-------	26	25	-------	173
Net tonnage	-------	1, 072	-------	216	178	-------	1, 279
Boats:							
Motor	-------	1, 676	-------	17	130	-------	1, 970
Other	49	-------	102	-------	282	-------	1, 572
Accessory boats	-------	-------	-------	-------	24	-------	24
Apparatus:							
Number	67	1, 828	25, 500	76	744	-------	-------
Yards at mouth	-------	22, 533	-------	76	-------	-------	-------

CATCH: BY GEAR

Species	Haul seines		Gill nets, runaround		Trammel nets		Lines, hand	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Croaker	273, 200	$6, 696	300	$9	29, 800	$1, 158	104, 200	$3, 839
Drum:								
Black	90, 500	2, 982	-------	------	13, 600	455	46, 000	1, 841
Red or redfish	195, 200	10, 845	1, 000	50	74, 000	3, 902	76, 700	4, 414
Flounders	7, 200	473	-------	------	2, 800	224	700	35
Groupers	-------	-------	-------	------	-------	-------	4, 000	160
Jewfish	-------	-------	-------	------	-------	-------	21, 000	945
King whiting or "kingfish"	700	21	-------	------	1, 300	39	-------	------
Mullet	3, 400	68	-------	------	2, 000	39	-------	------
Sea catfish	1, 700	51	-------	------	2, 000	60	1, 000	30
Sheepshead	105, 700	3, 653	100	5	16, 000	719	33, 400	1, 480
Snapper, red	-------	-------	-------	------	-------	-------	117, 000	9, 780
Spot	2, 300	46	-------	------	-------	-------	-------	------
Squeteagues or "sea trout":								
Spotted	345, 600	27, 526	6, 600	528	145, 300	10, 602	267, 500	21, 952
White	165, 700	5, 813	-------	------	21, 500	673	84, 400	3, 332
Tripletail	-------	-------	-------	------	-------	-------	700	21
Crabs:								
Hard	220, 100	2, 344	-------	------	-------	-------	-------	------
Soft and peelers	74, 000	11, 650	-------	------	-------	-------	-------	------
Shrimp	3, 281, 400	109, 251	-------	------	-------	-------	-------	------
Terrapin, diamond back	1, 200	300	-------	------	-------	-------	-------	------
Total	4, 767, 900	181, 719	8, 000	592	308, 300	17, 871	756, 600	47, 829

Fisheries of Louisiana, 1936—Continued

CATCH: BY GEAR—Continued

Species	Lines—Continued		Dip nets				Cast nets	
	Trot with baits or snoods		Common		Drop			
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Crabs:								
Hard	10, 773, 500	$125, 063	20, 400	$546	1, 562, 400	$39, 812		
Soft and peelers			12, 400	2, 047	98, 900	12, 334		
Shrimp							64, 800	$2, 740
Total	10, 773, 500	125, 063	32, 800	2, 593	1, 661, 300	52, 146	64, 800	2, 740

Species	Otter trawls		Brush traps		Dredges		Tongs		By hand	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Flounders	11, 000	$790								
Crabs, soft and peelers			180, 000	$27, 000						
Shrimp	50, 083, 600	1, 724, 177								
Oysters, market:										
Public, spring					388, 100	$21, 594	25, 900	$2, 015		
Public, fall					100, 900	7, 801	27, 100	3, 287		
Private, spring					684, 800	50, 210	2, 271, 600	201, 111		
Private, fall					404, 800	36, 048	1, 839, 600	192, 663		
Terrapin, diamond back									4, 200	$750
Total	50, 094, 600	1, 724, 967	180, 000	27, 000	1, 578, 600	115, 653	4, 164, 200	399, 076	4, 200	750

NOTE.—The catch as shown above for Louisiana does not include the following products, which were taken by Mississippi craft in Louisiana waters: Shrimp, 15,748,300 pounds, valued at $423,899; oysters, market, spring, 4,009,200 pounds of meats, valued at $244,879, and oysters, market, fall, 56,700 pounds of meats, valued at $3,884. These products have been included with the Mississippi catch.

OPERATING UNITS: BY PARISHES

Item	Assumption	Calcasieu	Cameron	Iberia	Jefferson	Jefferson Davis	Lafourche	Orleans
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels					57		112	41
On boats and shore:								
Regular		20	90	12	1, 046	4	770	142
Casual	50	4	1	5	8	8	5	123
Total	50	24	91	17	1, 111	12	887	306
Vessels, motor					27		48	12
Net tonnage					238		340	110
Boats:								
Motor		10	45	8	382	2	355	50
Other	50	4	9	9	253	10	41	139
Accessory boats					1		15	
Apparatus:								
Haul seines			1		12		5	7
Length, yards			300		4, 900		1, 700	860
Gill nets, runaround				1				
Square yards				550				
Trammel nets				2	3			1
Square yards				360	680			180
Lines:								
Hand		2			26	7		54
Hooks		2			26	7		59
Trot with baits or snoods	50	3	5	4	125	10	5	16
Baits or snoods	10, 000	225	750	800	37, 500	750	1, 000	5, 200
Dip nets:								
Common								5
Drop					900			5, 015
Cast nets					12			35
Otter trawls, shrimp		10	45	4	393	2	390	26
Yards at mouth		110	540	44	4, 822	20	4, 894	350
Brush traps					25, 500			
Dredges, oyster					6		10	22
Yards at mouth					6		10	22
Tongs, oyster			6	7	20		101	8

Fisheries of Louisiana, 1936—Continued

OPERATING UNITS: BY PARISHES—Continued

Item	Plaquemines	St. Bernard	St. Charles	St. John the Baptist	St. Mary	St. Tammany	Tangipahoa	Terrebonne	Vermilion
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	70	14			18	2		89	
On boat and shore:									
Regular	628	343	76		103	68	12	1, 137	29
Casual	45	155	40	10	375	52	8	23	20
Total	743	512	116	10	496	122	20	1, 249	49
Vessels, motor	31	7			8	1		39	
Net tonnage	208	50			66	9		258	
Boats:									
Motor	312	150	42		66	5		524	19
Other	135	167	68	6	385	84	20	175	17
Accessory boats	3							5	
Apparatus:									
Haul seines	5	51		4		4		11	7
Length, yards	2, 750	4, 850		80		445		1, 680	945
Trammel nets	20	1						15	4
Square yards	3, 820	190						2, 625	1, 500
Lines:									
Hand	14	30			20	85		44	
Hooks	14	30			20	85		44	
Trot with baits or snoods	91	94	72		404	2		30	10
Baits or snoods	35, 200	18, 700	21, 600		80, 800	700		4, 100	1, 500
Dip nets:									
Common						36	10		
Drop	60	279		80		1, 880	480		
Cast nets							20		
Otter trawls, shrimp	250	137	38		40	2		484	7
Yards at mouth	3, 052	1, 666	507		543	24		5, 879	82
Dredges, oyster	14				2			17	5
Yards at mouth	14				2			17	5
Tongs, oyster	168				22	8		400	4

CATCH: BY PARISHES

Species	Assumption		Calcasieu		Cameron		Iberia		Jefferson	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Croaker			400	$16			2, 300	$89	1, 000	$30
Drum:										
Black					700	$29	800	24	5, 700	177
Red or redfish			200	10	1, 100	76	6, 000	300	27, 600	1, 688
Flounders					3, 100	155				
Sheepshead					200	8	1, 600	80	3, 800	114
Squeteagues or "sea trout":										
Spotted			1, 500	120	9, 100	728	12, 600	1, 008	28, 600	2, 288
White							700	24	600	18
Tripletail									700	21
Crabs:										
Hard	601, 000	$7, 512	3, 200	108	11, 400	228	4, 600	126	2, 957, 300	30, 392
Soft and peelers									202, 500	30, 000
Shrimp			254, 000	9, 398	1, 154, 400	42, 712	32, 000	1, 280	12, 257, 400	397, 458
Oysters, market:										
Public, spring					6, 400	400				
Public, fall					6, 200	515				
Private, spring							18, 700	1, 875	84, 400	8, 160
Private, fall							13, 600	1, 575	101, 200	10, 140
Total	601, 000	7, 512	259, 300	9, 652	1, 192, 600	44, 851	92, 900	6, 381	15, 670, 800	480, 486

Fisheries of Louisiana, 1936—Continued

CATCH: BY PARISHES—Continued

Species	Jefferson Davis		La Fourche		Orleans		Plaquemines	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Croaker	400	$20	-----	-----	21,300	$688	21,400	$837
Drum:								
Black	-----	-----	-----	-----	13,800	504	6,600	198
Red or redfish	-----	-----	-----	-----	51,500	2,642	31,600	1,637
Flounders	-----	-----	-----	-----	1,000	59	2,900	232
Groupers	-----	-----	-----	-----	4,000	160	-----	-----
Jewfish	-----	-----	-----	-----	21,000	945	-----	-----
Mullet	-----	-----	-----	-----	3,300	65	-----	-----
Sea catfish	-----	-----	-----	-----	-----	-----	1,000	30
Sheepshead	-----	-----	-----	-----	18,400	884	13,500	650
Snapper, red	-----	-----	-----	-----	42,000	3,780	-----	-----
Spot	-----	-----	-----	-----	2,000	40	-----	-----
Squeteagues or "sea trout":								
Spotted	5,000	500	-----	-----	70,400	5,990	76,800	5,482
White	-----	-----	-----	-----	19,900	746	24,100	718
Crabs:								
Hard	9,000	270	16,000	$180	1,198,600	30,057	1,900,000	21,200
Soft and peelers	-----	-----	-----	-----	23,400	3,445	-----	-----
Shrimp	24,000	960	12,354,700	468,745	442,400	16,932	6,059,400	225,426
Oysters, market:								
Public, spring	-----	-----	-----	-----	145,500	8,550	246,800	13,463
Public, fall	-----	-----	-----	-----	100,900	7,801	18,000	2,400
Private, spring	-----	-----	480,100	46,.538	335,600	29,645	729,400	67,153
Private, fall	-----	-----	398,000	42,020	309,500	27,655	906,300	99,431
Total	38,400	1,750	13,248,800	557,483	2,824,500	140,588	10,037,800	438,857

Species	St. Bernard		St. Charles		St. John the Baptist		St. Mary	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Croaker	277,800	$6,654	-----	-----	-----	-----	4,000	$120
Drum:								
Black	66,200	1,994	-----	-----	-----	-----	5,000	300
Red or redfish	113,600	6,626	-----	-----	-----	-----	19,600	1,372
Flounders	5,000	300	-----	-----	-----	-----	-----	-----
Sheepshead	85,300	2,558	-----	-----	-----	-----	7,100	213
Snapper, red	-----	-----	-----	-----	-----	-----	75,000	6,000
Squeteagues or "sea trout":								
Spotted	245,400	19,952	-----	-----	-----	-----	26,300	2,104
White	144,000	4,910	-----	-----	-----	-----	-----	-----
Crabs:								
Hard	1,114,300	11,384	332,200	$3,322	16,000	$480	3,836,900	47,950
Soft and peelers	83,600	13,090	-----	-----	-----	-----	-----	-----
Shrimp	3,892,000	136,750	1,073,000	37,555	7,200	150	1,180,100	42,380
Oysters, market:								
Private, spring	-----	-----	-----	-----	-----	-----	77,400	6,317
Private, fall	-----	-----	-----	-----	-----	-----	52,600	4,208
Terrapin, diamond back	3,000	750	-----	-----	-----	-----	-----	-----
Total	6,030,200	204,968	1,405,200	40,877	23,200	630	5,284,000	110,964

Species	St. Tammany		Tangipahoa		Terrebonne		Vermilion	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Croaker	51,800	$2,137	-----	-----	23,800	$952	3,300	$159
Drum:								
Black	-----	-----	-----	-----	49,900	1,996	1,400	56
Red or redfish	17,100	870	-----	-----	73,000	3,650	5,600	340
Flounders	-----	-----	-----	-----	9,500	760	200	16
King whiting or "kingfish"	-----	-----	-----	-----	2,000	60	-----	-----
Mullet	-----	-----	-----	-----	2,100	42	-----	-----
Sea catfish	-----	-----	-----	-----	3,700	111	-----	-----
Sheepshead	8,000	480	-----	-----	14,500	710	2,800	160
Spot	-----	-----	-----	-----	300	6	-----	-----
Squeteagues or "sea trout":								
Spotted	110,500	10,330	-----	-----	151,800	9,946	27,000	2,160
White	46,300	1,902	-----	-----	30,000	1,200	6,000	300
Crabs:								
Hard	329,700	10,044	96,000	$2,880	141,600	1,416	8,600	216
Soft and peelers	45,600	4,896	10,200	1,600	-----	-----	-----	-----
Shrimp	58,000	2,146	20,000	800	14,520,000	450,636	101,200	2,840
Oysters, market:								
Public, spring	15,300	1,196	-----	-----	-----	-----	-----	-----
Public, fall	2,900	372	-----	-----	-----	-----	-----	-----
Private, spring	-----	-----	-----	-----	1,169,900	87,833	60,900	3,800
Private, fall	-----	-----	-----	-----	450,000	42,582	13,200	1,100
Terrapin, diamond back	-----	-----	-----	-----	2,400	300	-----	-----
Total	685,200	34,373	126,200	5,280	16,644,500	602,200	230,200	11,147

TEXAS

Fisheries of Texas, 1936

OPERATING UNITS: BY GEAR

Item	Haul seines	Gill nets		Trammel nets	Lines			
		Runaround	Stake		Hand	Troll	Trot with baits or snoods	Trot with hooks
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels					56			
On boats and shore:								
Regular	8	70	149	174	126			116
Casual	8			22	77	6	38	8
Total	16	70	149	196	259	6	38	124
Vessels, motor					8			
Net tonnage					127			
Boats:								
Motor		36	40	90	66	4	7	47
Other	6		35	7	85		31	52
Apparatus:								
Number	8	89	287	98	259	6	38	124
Length, yards	850							
Square yards		25,350	81,300	53,990				
Hooks, baits, or snoods					259	6	11,700	64,200

Item	Dip nets	Otter trawls, shrimp	Pots, crab	Spears	Dredges, oyster	Tongs, oyster	Total, exclusive of duplication
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels		72			8		130
On boats and shore:							
Regular	20	644	2	74	107	124	1,103
Casual	3	2	5	107	17	58	286
Total	23	718	7	181	132	182	1,519
Vessels, motor		34			2		41
Net tonnage		311			26		428
Boats:							
Motor		317	2		41	46	501
Other	23		5	8		57	245
Apparatus:							
Number	23	351	68	181	62	168	
Yards at mouth		5,639			68		

CATCH: BY GEAR

Species	Haul seines		Gill nets				Trammel nets	
			Runaround		Stake			
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Buffalofish							200	$8
Croaker	1,000	$20	1,400	$38	12,000	$310	36,000	1,090
Drum:								
Black	48,400	1,302	361,100	8,149	1,367,700	29,156	230,600	7,206
Red or redfish	50,100	3,486	68,300	4,978	261,700	17,552	341,600	24,609
Flounders							14,400	1,372
King whiting or "kingfish"							100	5
Pompano					100	15		
Sea catfish					100	5	700	29
Sheepshead	800	16	2,800	76	9,600	262	49,400	1,447
Snook or sergeantfish			2,000	160	5,000	400		
Spanish mackerel			2,700	130	3,000	160	1,000	65
Spot	4,100	82			1,500	30	5,000	100
Squeteagues or "sea trout," spotted	31,000	2,520	161,600	13,742	650,100	55,330	629,100	51,917
Total	135,400	7,426	599,900	27,273	2,310,800	103,220	1,308,100	87,848

Fisheries of Texas, 1936—Continued

CATCH: BY GEAR—Continued

Species	Lines								Dip nets	
	Hand		Troll		Trot, with baits or snoods		Trot, with hooks			
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Catfish and bullheads	--------	------	--------	------	--------	------	53,200	$5,132	--------	------
Croaker	500	$15	--------	------	--------	------	1,500	45	--------	------
Drum:										
Black	40,700	1,540	--------	------	--------	------	208,000	8,487	--------	------
Red or redfish	69,300	5,191	--------	------	--------	------	164,600	13,251	--------	------
Groupers	34,100	1,507	--------	------	--------	------	--------	------	--------	------
Jewfish	2,900	107	--------	------	--------	------	--------	------	--------	------
Kingfish or "king mackerel"	--------	------	2,800	$112	--------	------	--------	------	--------	------
Sea catfish	500	15	--------	------	--------	------	1,800	94	--------	------
Sheepshead	500	15	--------	------	--------	------	2,900	85	--------	------
Snapper, red	906,600	58,436	--------	------	--------	------	--------	------	--------	------
Spanish mackerel	10,000	630	--------	------	--------	------	--------	------	--------	------
Squeteagues or "sea trout," spotted	99,900	8,935	--------	------	--------	------	264,500	23,725	--------	------
Crabs, hard	--------	------	--------	------	142,000	$5,350	--------	------	132,600	$1,915
Total	1,165,000	76,391	2,800	112	142,000	5,350	696,500	50,819	132,600	1,915

Species	Otter trawls		Pots, crab		Spears		Dredges		Tongs	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Flounders	--------	------	--------	------	89,100	$8,846	--------	------	--------	------
King whiting or "kingfish"	15,000	$450	--------	------	--------	------	--------	------	--------	------
Crabs, hard	--------	------	45,000	$900	--------	------	--------	------	--------	------
Shrimp	9,962,500	328,603	--------	------	--------	------	--------	------	--------	------
Oysters, market:										
Public, spring	--------	------	--------	------	--------	------	284,400	$26,585	190,100	$18,375
Public, fall	--------	------	--------	------	--------	------	182,300	17,755	129,400	12,510
Private, spring	--------	------	--------	------	--------	------	--------	------	24,600	1,923
Private, fall	--------	------	--------	------	--------	------	--------	------	12,300	962
Total	9,977,500	329,053	45,000	900	89,100	8,846	466,700	44,340	356,400	33,770

OPERATING UNITS: BY COUNTIES

Item	Aransas	Brazoria	Calhoun	Cameron	Galveston	Harris
	Number	*Number*	*Number*	*Number*	*Number*	*Number*
Fishermen:						
On vessels	2	--------	--------	5	85	--------
On boats and shore:						
Regular	127	17	149	148	192	2
Casual	--------	--------	24	29	71	33
Total	129	17	173	182	348	35
Vessels, motor	1	--------	--------	1	22	--------
Net tonnage	13	--------	--------	6	260	--------
Boats:						
Motor	51	11	70	42	109	16
Other	32	--------	25	46	41	3
Apparatus:						
Haul seines	--------	--------	--------	2	--------	--------
Length, yards	--------	--------	--------	250	--------	--------
Gill nets:						
Runaround	8	--------	--------	50	--------	--------
Square yards	2,400	--------	--------	16,500	--------	--------
Stake	--------	--------	--------	210	--------	--------
Square yards	--------	--------	--------	63,000	--------	--------
Trammel nets	21	--------	29	--------	11	8
Square yards	12,600	--------	20,360	--------	3,500	2,480
Lines:						
Hand	--------	--------	30	50	58	--------
Hooks	--------	--------	30	50	58	--------
Troll	--------	--------	--------	6	--------	--------
Hooks	--------	--------	--------	6	--------	--------
Trot with baits or snoods	--------	--------	--------	--------	35	3
Baits or snoods	--------	--------	--------	--------	10,500	1,200

Fisheries of Texas, 1936—Continued

OPERATING UNITS: BY COUNTIES—Continued

Item	Aransas	Brazoria	Calhoun	Cameron	Galveston	Harris
Apparatus—Continued.						
Lines—Continued.	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Trot with hooks	----	5	16	----	----	2
Hooks	----	1, 500	4, 800	----	----	600
Dip nets	20	----	----	----	----	----
Otter trawls, shrimp	29	6	53	15	104	1
Yards at mouth	468	90	821	233	1, 779	4
Pots, crab	----	----	----	----	68	----
Spears	10	----	58	8	----	----
Dredges, oyster	17	----	20	----	6	3
Yards at mouth	21	----	20	----	7	3
Tongs, oyster	18	----	34	18	14	12

Item	Jefferson	Kleberg	Matagorda	Nueces	San Patricio
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	----	----	12	4	22
On boats and shore:					
Regular	7	36	134	163	128
Casual	2	----	18	87	22
Total	9	36	164	254	172
Vessels, motor	----	----	4	2	11
Net tonnage	----	----	45	19	85
Boats:					
Motor	3	16	63	63	57
Other	----	12	8	63	15
Apparatus:					
Haul seines	----	----	----	6	----
Length, yards	----	----	----	600	----
Gill nets:					
Runaround	----	----	----	31	----
Square yards	----	----	----	6, 450	----
Stake	----	----	----	64	13
Square yards	----	----	----	12, 800	5, 500
Trammel nets	----	----	7	----	22
Square yards	----	----	4, 850	----	10, 200
Lines:					
Hand	7	24	----	65	25
Hooks	7	24	----	65	25
Trot with hooks	----	36	----	61	4
Hooks	----	32, 000	----	24, 500	800
Dip nets	----	----	----	3	----
Otter trawls, shrimp	----	----	56	31	56
Yards at mouth	----	----	846	525	873
Spears	----	----	30	60	15
Dredges, oyster	----	----	12	4	----
Yards at mouth	----	----	13	4	----
Tongs, oyster	2	----	48	14	8

CATCH: BY COUNTIES

Species	Aransas		Brazoria		Calhoun	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Buffalofish	----	----	----	----	200	$8
Catfish and bullheads	----	----	----	----	52, 800	5, 100
Croaker	2, 000	$60	----	----	----	----
Drum:						
Black	58, 900	1, 767	----	----	79, 900	2, 530
Red or redfish	39, 100	2, 740	10, 200	$816	90, 600	7, 171
Flounders	4, 800	340	----	----	41, 800	4, 530
King whiting or "kingfish"	----	----	----	----	2, 000	60
Sea catfish	----	----	----	----	200	14
Sheepshead, salt water	4, 300	130	----	----	300	9
Spanish mackerel	700	30	----	----	----	----
Squeteagues or "sea trout," spotted	84, 000	6, 720	1, 200	120	165, 000	14, 572
Crabs, hard	97, 200	1, 215	----	----	----	----
Shrimp	509, 700	18, 859	198, 000	7, 350	613, 600	18, 405
Oysters, market:						
Public, spring	123, 600	11, 035	----	----	73, 900	5, 715
Public, fall	88, 000	7, 915	----	----	34, 400	2, 585
Total	1, 012, 300	50, 811	209, 400	8, 286	1, 154, 700	60, 699

Fisheries of Texas, 1936—Continued

CATCH: BY COUNTIES—Continued

Species	Cameron		Galveston		Harris		Jefferson	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Croaker	6,400	$128	22,000	$660	----	----	----	----
Drum:								
Black	1,558,300	31,166	21,600	650	----	----	----	----
Red or redfish	211,200	12,672	111,000	6,670	18,000	$1,200	----	----
Flounders	800	56	4,000	320	----	----	----	----
Groupers	4,000	160	7,900	237	----	----	22,200	$1,110
Jewfish	2,000	80	900	27	----	----	----	----
Kingfish or "king mackerel"	2,800	112	----	----	----	----	----	----
King whiting or "kingfish"	----	----	9,000	270	----	----	----	----
Pompano	100	15	----	----	----	----	----	----
Sea catfish	100	5	----	----	800	64	----	----
Sheepshead, salt-water	4,200	84	32,000	960	----	----	----	----
Snapper, red	48,500	3,638	775,300	46,518	----	----	82,800	8,280
Snook or sergeantfish	5,000	400	----	----	----	----	----	----
Spanish mackerel	----	----	6,000	360	----	----	----	----
Spot	2,000	40	5,000	100	----	----	----	----
Squeteagues or "sea trout," spotted	736,300	62,640	180,000	12,600	39,500	3,160	----	----
Crabs, hard	----	----	166,000	5,700	21,000	550	----	----
Shrimp	254,200	8,900	3,047,300	113,825	8,000	160	----	----
Oysters, market:								
Public, spring	7,700	600	33,800	3,600	52,600	4,880	7,800	600
Public, fall	3,200	300	34,600	3,900	35,600	3,300	3,200	300
Total	2,846,800	120,996	4,456,400	196,397	175,500	13,314	116,000	10,290

Species	Kleberg		Matagorda		Nueces		San Patricio	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Catfish and bullheads	----	----	----	----	400	$32	----	----
Croaker	----	----	3,000	$90	6,000	180	13,000	$400
Drum:								
Black	133,800	$6,020	48,600	1,469	301,500	10,381	53,900	1,857
Red or redfish	11,800	1,065	64,400	5,254	346,500	27,235	52,800	4,244
Flounders	----	----	17,400	1,762	22,700	2,250	12,000	960
King whiting or "kingfish"	----	----	100	5	----	----	4,000	120
Sea catfish	----	----	----	----	----	----	2,000	60
Sheepshead, salt water	----	----	3,200	98	6,000	180	16,000	440
Snook or sergeantfish	----	----	----	----	2,000	160	----	----
Spanish mackerel	----	----	----	----	4,000	200	6,000	395
Spot	----	----	----	----	3,600	72	----	----
Squeteagues or "sea trout," spotted	36,000	3,245	92,000	9,050	363,000	32,425	139,200	11,637
Crabs, hard	----	----	----	----	35,400	700	----	----
Shrimp	----	----	2,554,800	76,622	695,200	22,850	2,081,700	61,632
Oysters, market:								
Public, spring	----	----	161,400	17,155	9,700	1,000	4,000	375
Public, fall	----	----	105,000	11,195	4,800	500	2,900	270
Private, spring	----	----	24,600	1,923	----	----	----	----
Private, fall	----	----	12,300	962	----	----	----	----
Total	181,600	10,330	3,086,800	125,585	1,800,800	98,165	2,387,500	82,390

FISHERIES OF THE PACIFIC COAST STATES[9]

The yield of the commercial fisheries of the Pacific Coast States (Washington, Oregon, and California) during 1936 amounted to 1,925,342,300 pounds, valued at $24,881,509 to the fishermen, representing an increase of 15 percent in volume and 8 percent in value as compared with the catch in the previous year. These fisheries gave employment to 20,620 fishermen as compared with 20,583 in 1935.

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[9] Data on the operating units and catch of the fisheries of the Pacific Coast States have been taken largely from statistics collected by the various State agencies. Supplementary surveys, compilations, and analyses have been made by agents of this Bureau in order that the figures may be presented in a manner comparable with those of other sections. While statistics of the fisheries of California are for the calendar year, those for Oregon and Washington are for the fiscal year ending March 31, 1937, except that statistics of the halibut fishery in these latter States are for the calendar year. For a clearer understanding of the statistics published in this section the reader is referred to the section in the latter part of this document entitled "Statistical survey procedure."

There were 339 fishery wholesale and manufacturing establishments in the three States in 1936 as compared with 337 in 1935. During 1936 these establishments employed 16,589 persons, paid $9,365,375 in salaries and wages, and produced manufactured products (canned, cured, packaged, and byproducts) valued at $52,498,170. In 1935 the wholesale and manufacturing firms employed 14,750 persons, paid $6,531,351 in salaries and wages, and produced manufactured products valued at $51,243,348.

Fisheries of the Pacific Coast States, 1936

SUMMARY OF CATCH

Product	Washington		Oregon	
	Pounds	*Value*	*Pounds*	*Value*
Fish	97, 037, 400	$4, 601, 843	54, 385, 800	$1, 740, 415
Shellfish, etc	10, 381, 000	998, 510	3, 355, 600	254, 655
Total	107, 418, 400	5, 600, 353	57, 741, 400	1, 995, 070

Product	California		Total	
	Pounds	*Value*	*Pounds*	*Value*
Fish	1, 749, 614, 900	$16, 601, 327	1, 901, 038, 100	$22, 943, 585
Shellfish, etc	7, 778, 000	602, 807	21, 514, 600	1, 855, 972
Whale products	2, 789, 600	81, 952	2, 789, 600	81, 952
Total	1, 760, 182, 500	17, 286, 086	1, 925, 342, 300	24, 881, 509

OPERATING UNITS: BY STATES

Item	Washington				Oregon		
	Puget Sound district	Coastal district	Columbia River district	Total	Columbia River district	Coastal district	Total
	Number	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Fishermen:							
On vessels	3, 321	68	15	3, 404	97	41	138
On boats and shore	1, 940	3, 962	911	6, 813	2, 174	1, 415	3, 589
Total	5, 261	4, 030	926	10, 217	2, 271	1, 456	3, 727
Vessels:							
Motor	511	34	6	551	40	20	60
Net tonnage	10, 421	252	65	10, 738	439	157	596
Sail	3			3			
Net tonnage	1, 346			1, 346			
Total vessels	514	34	6	554	40	20	60
Total net tonnage	11, 767	252	65	12, 084	439	157	596
Boats:							
Motor	810	412	628	1, 850	1, 054	1, 002	2, 056
Other	303	184	18	505	99	130	229
Accessory boats	265			265	1		1
Apparatus:							
Purse seines:							
Herring	2			2			
Length, yards	234			234			
Salmon	172			172			
Length, yards	94, 300			94, 300			
Sardine [1]	34			34	1		1
Length, yards	12, 716			12, 716	500		500
Haul seines	196	4	2	202	42	7	49
Length, yards	14, 142	280	251	14, 673	22, 700	1, 040	23, 740

[1] Used in the pilchard fishery of the Washington and Oregon coasts by Puget Sound purse seine vessels. See separate sections for catch statistics.

Fisheries of the Pacific Coast States, 1936—Continued

OPERATING UNITS: BY STATES—Continued

Item	Washington				Oregon		
	Puget Sound district	Coastal district	Columbia River district	Total	Columbia River district	Coastal district	Total
Apparatus—Continued							
Gill nets:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Drift	323	188	484	995	755	451	1,206
Square yards	487,730	358,608	1,339,712	2,186,050	2,409,205	635,459	3,044,664
Set	[2] 6	[2] 110		[2] 116	123	936	1,059
Square yards	1,440	27,500		28,940	34,440	336,960	371,400
Lines:							
Trawl, set, and hand	27,571		344	27,915	625	203	828
Hooks	568,190		11,016	579,206	18,845	6,380	25,225
Troll	1,790	555	204	2,549	844	679	1,523
Hooks	7,912	2,498	714	11,124	3,580	3,055	6,635
Pound nets	[2] 2			[2] 2	38		38
Brush weirs	8			8			
Dip nets	31	60	219	310	252		252
Reef nets	23			23			
Beam trawls	10			10			
Yards at mouth	66			66			
Otter trawls	49			49	1	1	2
Yards at mouth	675			675	24	20	44
Traps:							
Crab	3,765	3,610		7,375		17,745	17,745
Crawfish					1,534		1,534
Octopus	570			570			
Dredges, oyster	2	4		6			
Yards at mouth	2	8		10			
Tongs and rakes	110	190		300		8	8
Shovels	386	3,288		3,674		194	194

Item	California						Grand total
	Northern district	San Francisco district	Monterey district	San Pedro district	San Diego district	Total	
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	31	541	652	1,849	793	3,866	7,408
On boats and shore	267	833	532	904	274	2,810	13,212
Total	298	1,374	1,184	2,753	1,067	6,676	20,620
Vessels:							
Steam		2				2	2
Net tonnage		41				41	41
Motor	16	53	66	199	84	418	1,029
Net tonnage	134	1,652	2,239	8,220	4,877	17,122	28,456
Sail		2				2	5
Net tonnage		824				824	2,170
Total vessels	16	57	66	199	84	422	1,036
Total net tonnage	134	2,517	2,239	8,220	4,877	17,987	30,667
Boats:							
Motor	188	534	215	475	119	1,531	5,437
Other		51	34	40	4	129	863
Accessory boats		108	80	183	85	456	722
Apparatus:							
Purse seines:							
Herring							2
Length, yards							234
Mackerel				9		9	9
Length, yards				3,924		3,924	3,924
Salmon							172
Length, yards							94,300
Sardine		19	37	74		130	165
Length, yards		7,731	12,006	27,582		47,319	60,535
Tuna		3	4	57		64	64
Length, yards		1,750	2,347	33,513		37,610	37,610

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[2] Fished only on Indian reservations.

Fisheries of the Pacific Coast States, 1936—Continued

OPERATING UNITS: BY STATES—Continued

Item	California						Grand total
	Northern district	San Francisco district	Monterey district	San Pedro district	San Diego district	Total	
Apparatus—Continued.							
Lampara and ring nets:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Mackerel		1	4	59	15	79	79
Length, yards		360	1, 900	27, 909	4, 770	34, 939	34, 939
Sardine		14	34	55	19	122	122
Length, yards		4, 275	10, 363	25, 895	6, 056	46, 589	46, 589
Other			22	6		28	28
Length, yards			4, 500	2, 164		6, 664	6, 664
Haul seines		3				3	254
Length, yards		567				567	38, 980
Gill nets:							
Drift:							
Barracuda				12	9	21	21
Square yards				104, 960	54, 868	159, 828	159, 828
Salmon		114				114	2, 315
Square yards		377, 980				377, 980	5, 608, 694
Shad		139				139	139
Square yards		500, 882				500, 882	500, 882
Sea bass		4	14			18	18
Square yards		8, 400	33, 152			41, 552	41, 552
Set:							
"California halibut"			18			18	18
Square yards			55, 395			55, 395	55, 395
Crab			9			9	9
Square yards			30, 960			30, 960	30, 960
Salmon							1, 175
Square yards							400, 340
Sea bass				16	12	28	28
Square yards				53, 104	64, 148	117, 252	117, 252
Miscellaneous	20	45	44	23	5	137	137
Square yards	15, 000	68, 775	48, 809	22, 350	4, 500	159, 434	159, 434
Trammel nets				26	11	37	37
Square yards				153, 501	105, 991	259, 492	259, 492
Lines:							
Trawl, set, and hand	301	759	859	2, 334	1, 057	5, 310	34, 053
Hooks	33, 789	39, 012	82, 394	279, 797	26, 826	461, 818	1, 066, 249
Troll	983	1, 388	868	1, 861	503	5, 603	9, 675
Hooks	4, 274	6, 579	2, 904	1, 903	503	16, 163	33, 922
Pound nets							40
Brush weirs							8
Fyke nets		1, 938				1, 938	1, 938
Dip nets	42	7				49	611
Bag nets, shrimp		11				11	11
Length, yards		8, 080				8, 080	8, 080
Reef nets							23
Paranzella nets		9		3		12	12
Yards at mouth		150		50		200	200
Beam trawls		17				17	27
Yards at mouth		113				113	179
Otter trawls	2	1	4			7	58
Yards at mouth	20	10	44			74	793
Traps:							
Crab	695	5, 324	122			6, 141	31, 261
Crawfish							1, 534
Sea crawfish			35	5, 740	930	6, 705	6, 705
Octopus			92			92	662
Harpoons:							
Swordfish				57	15	72	72
Whale		2				2	2
Dredges, oyster							6
Yards at mouth							10
Tongs and rakes		25	7			32	340
Shovels	13	42	35	83		173	4, 041
Abalone outfits		1	16	5		22	22

NOTE.—In addition to the California operating units shown above, 124 motor vessels, 120 accessory boats and 2 motorboats having their home ports in the State of Washington, and 14 vessels, 3 accessory boats, and 13 motorboats having their home ports in the State of Oregon, were operated off California and contributed to the California catch. The following gear was operated by these craft: 4 mackerel purse seines, 108 sardine purse seines, 4 tuna purse seines, 22 mackerel ring nets, 18 sardine ring nets, 158 set and hand lines, and 174 troll lines.

Fisheries of the Pacific Coast States, 1936—Continued

CATCH: BY STATES

Species	Washington		Oregon	
	Pounds	*Value*	*Pounds*	*Value*
FISH				
Carp	87,300	$2,382		
Cod [1]	7,771,300	122,866	600	$9
Flounders:				
"Sole"	4,523,500	91,946	148,400	2,984
Other	291,200	6,435	5,600	91
Grayfish	330,700	764		
Halibut	24,090,900	2,069,334	277,300	21,919
Herring	989,700	9,400	23,100	268
"Lingcod"	1,566,400	40,613	168,700	4,139
Perch	102,600	3,210	11,400	241
Pilchard or sardine	13,114,400	65,638	28,393,300	141,966
Rockfishes	566,900	17,369	121,100	3,322
Sablefish	2,767,000	108,605	270,500	8,156
Salmon:				
Blueback, red, or sockeye	3,504,700	307,352	284,700	30,223
Chinook or king	12,989,100	966,096	14,520,500	1,138,724
Chum or keta	11,232,500	202,632	1,877,100	20,091
Humpback or pink	123,800	2,482		
Silver or coho	9,576,900	465,766	4,899,700	213,929
Shad	57,400	1,722	665,500	19,962
Smelts:				
Eulachon	2,247,600	55,628	312,900	7,520
Other	571,900	33,937	4,700	161
Steelhead trout	452,200	24,173	2,241,100	119,977
Striped bass			29,100	1,950
Sturgeon	79,400	3,493	102,900	2,875
Tuna, albacore			27,600	1,908
Total	97,037,400	4,601,843	54,385,800	1,740,415
SHELLFISH, ETC.				
Crabs	1,780,900	128,343	3,081,600	218,511
Crawfish, fresh water			86,900	9,559
Shrimp	101,600	13,208		
Clams:				
Hard	877,800	64,215		
Razor	860,200	128,013	64,500	12,286
Mixed			85,800	6,541
Octopus	100,300	4,092		
Oysters, market:				
Eastern	1,300	337		
Japanese	6,306,300	446,377	28,900	2,475
Native	304,800	207,481	7,900	5,283
Scallops, bay	21,800	5,128		
Squid	16,300	929		
Trepang	9,700	387		
Total	10,381,000	998,510	3,355,600	254,655
Grand total	107,418,400	5,600,353	57,741,400	1,995,070

Species	California [2]		Total	
	Pounds	*Value*	*Pounds*	*Value*
FISH				
Anchovies	195,100	$2,187	195,100	$2,187
Barracuda	2,977,800	140,752	2,977,800	140,752
Cabrilla	196,900	6,675	196,900	6,675
Carp	108,800	1,351	196,100	3,733
Catfish	304,600	37,161	304,600	37,161
Cod [1]	5,150,100	79,800	12,922,000	202,675
Flounders:				
"California halibut"	1,589,400	119,969	1,589,400	119,969
"Sole"	8,324,900	443,999	12,996,800	538,929
Other	1,359,200	83,244	1,656,000	89,770
Flyingfish	55,600	2,040	55,600	2,040
Grayfish	471,800	9,509	802,500	10,273
Groupers	60,500	2,574	60,500	2,574
Hake	50,800	548	50,800	548
Halibut	524,000	39,115	24,892,200	2,130,368
Hardhead	106,700	5,485	106,700	5,485
Herring	840,400	3,975	1,853,200	13,643
Horse mackerel	4,599,400	37,751	4,599,400	37,751
Kingfish	652,000	15,882	652,000	15,882

[1] All of the cod reported for California and most of the Washington catch were taken off Alaska.
[2] Includes the catch taken off Latin America.

Fisheries of the Pacific Coast States, 1936—Continued

CATCH: BY STATES—Continued

Species	California		Total	
	Pounds	*Value*	*Pounds*	*Value*
FISH—continued				
"Lingcod"	758, 200	$30, 298	2, 493, 300	$75, 050
Mackerel	100, 542, 200	931, 715	100, 542, 200	931, 715
Marlin	16, 600	515	16, 600	515
Mullet	10, 600	787	10, 600	787
Perch	207, 800	9, 429	321, 800	12, 880
Pilchard or sardine	1, 460, 791, 500	6, 891, 295	1, 502, 299, 200	7, 098, 899
Pompano	7, 900	3, 595	7, 900	3, 595
Rock bass	416, 200	21, 516	416, 200	21, 516
Rockfishes	4, 600, 600	164, 589	5, 288, 600	185, 280
Rudderfishes	43, 900	2, 926	43, 900	2, 296
Sablefish	1, 035, 500	31, 846	4, 073, 000	148, 607
Salmon:				
Blueback, red, or sockeye	----	----	3, 789, 400	337, 575
Chinook or king	5, 021, 500	360, 598	32, 531, 100	2, 465, 418
Chum or keta	----	----	13, 109, 600	222, 723
Humpback or pink	----	----	123, 800	2, 482
Silver or coho	----	----	14, 476, 600	679, 695
Sculpin	128, 800	9, 525	128, 800	9, 525
Sea bass:				
Black	397, 600	22, 335	397, 600	22, 335
White	808, 000	61, 672	808, 000	61, 672
Shad	2, 273, 000	45, 760	2, 995, 900	67, 444
Sheepshead	128, 600	4, 533	128, 600	4, 533
Skates	382, 000	4, 158	382, 000	4, 158
Smelts:				
Eulachon	----	----	2, 560, 500	63, 148
Other	841, 200	31, 541	1, 417, 800	65, 639
Spanish mackerel	18, 000	1, 008	18, 000	1, 008
Splittail	29, 300	528	29, 300	528
Squawfish	500	24	500	24
Steelhead trout	----	----	2, 693, 300	144, 150
Striped bass	----	----	29, 100	1, 950
Sturgeon	----	----	182, 300	6, 368
Suckers	48, 100	706	48, 100	706
Swordfish	577, 400	64, 193	577, 400	64, 193
Tomcod	4, 200	83	4, 200	83
Tuna and tunalike fishes:				
Albacore	956, 700	88, 795	984, 300	90, 703
Bluefin	18, 924, 900	922, 332	18, 924, 900	922, 332
Bonito	7, 215, 900	221, 466	7, 215, 900	221, 466
Skipjack or striped tuna	26, 992, 200	1, 191, 134	26, 992, 200	1, 191, 134
Yellowfin	78, 352, 700	4, 139, 211	78, 352, 700	4, 139, 211
Whitebait	197, 800	8, 733	197, 800	8, 733
Whitefish	46, 500	2, 523	46, 500	2, 523
Yellowtail	10, 092, 500	298, 552	10, 092, 500	298, 552
Other fish	178, 500	2, 019	178, 500	2, 019
Total	1, 749, 614, 900	16, 601, 327	1, 901, 038, 100	22, 943, 585
SHELLFISH, ETC.				
Crabs	2, 327, 900	255, 444	7, 190, 400	602, 298
Crawfish, fresh water	----	----	86, 900	9, 559
Sea crawfish or spiny lobster	1, 335, 000	148, 426	1, 335, 000	148, 426
Shrimp	2, 242, 700	32, 045	2, 344, 300	45, 253
Abalone	660, 400	92, 711	660, 400	92, 711
Clams:				
Hard	14, 900	2, 525	892, 700	66, 740
Pismo	52, 400	10, 722	52, 400	10, 722
Razor	----	----	924, 700	140, 299
Soft	29, 100	6, 056	29, 100	6, 056
Mixed	----	----	85, 800	6, 541
Octopus	62, 400	3, 676	162, 700	7, 768
Oysters, market:				
Eastern	58, 900	18, 320	60, 200	18, 657
Japanese	41, 400	7, 813	6, 376, 600	456, 665
Native	4, 300	1, 078	317, 000	213, 842
Scallops, bay	----	----	21, 800	5, 128
Squid	945, 500	23, 857	961, 800	24, 786
Turtles	2, 700	121	2, 700	121
Trepang	----	----	9, 700	387
Other shellfish	400	13	400	13
Total	7, 778, 000	602, 807	21, 514, 600	1, 855, 972

Fisheries of the Pacific Coast States, 1936—Continued

CATCH: BY STATES—Continued

Species	California		Total	
	Pounds	*Value*	*Pounds*	*Value*
WHALE PRODUCTS				
Whale meat	1, 600, 000	$32, 000	1, 600, 000	$32, 000
Whale oil	1, 189, 600	49, 952	1, 189, 600	49, 952
Total	2, 789, 600	81, 952	2, 789, 600	81, 952
Grand total	1, 760, 182, 500	17, 286, 086	1, 925, 342, 300	24, 881, 509

Industries related to the fisheries of the Pacific Coast States, 1936

OPERATING UNITS, SALARIES, AND WAGES

Item	Washington	Oregon	California	Total
	Number	*Number*	*Number*	*Number*
Transporting:				
Persons engaged	129	48	29	206
Vessels:				
Steam	----------	----------	1	1
Net tonnage	----------	----------	32	32
Motor	51	24	3	78
Net tonnage	1, 214	294	151	1, 659
Total vessels	51	24	4	79
Total net tonnage	1, 214	294	183	1, 691
Wholesale and manufacturing:				
Establishments	115	58	166	339
Persons engaged:				
Proprietors	53	38	258	349
Salaried employees	255	99	700	1, 054
Wage earners:				
Average for season	2, 998	1, 076	11, 112	15, 186
Average for year	1, 221	478	3, 967	5, 666
Paid to salaried employees	$510, 996	$170, 975	$2, 175, 742	$2, 857, 713
Paid to wage earners	$1, 161, 047	$462, 163	$4, 884, 452	$6, 507, 662
Total salaries and wages	$1, 672, 043	$633, 138	$7, 060, 194	$9, 365, 375
Fishermen manufacturing	128	13	137	278

PRODUCTS MANUFACTURED

Item	Washington		Oregon		California	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
By manufacturing firms:						
Barracuda, fresh fillets .... pounds	----------	----------	----------	----------	860, 000	$107, 500
Cabrilla, fresh fillets .... do	----------	----------	----------	----------	60, 000	8, 400
Cod, salted:						
Dry, partly boned .... do	227, 327	$19, 421	----------	----------	----------	----------
Boneless and absolutely boneless pounds	824, 806	122, 548	----------	----------	(1)	(1)
Flounders:						
Fresh fillets .... do	204, 775	29, 776	(1)	(1)	1, 825, 000	304, 025
Frozen fillets .... do	225, 585	30, 342	----------	----------	----------	----------
Grayfish, fresh fillets .... do	----------	----------	----------	----------	110, 000	11, 000
Halibut, frozen steaks .... do	267, 852	39, 803	----------	----------	----------	----------
"Lingcod", fresh fillets .... do	(1)	(1)	(1)	(1)	160, 000	21, 700
Mackerel:						
Canned .... standard cases	----------	----------	----------	----------	1, 229, 607	3, 471, 196
Meal .... tons	----------	----------	----------	----------	3, 025	90, 254
Oil .... gallons	----------	----------	----------	----------	191, 753	63, 454
Pilchard:						
Canned "sardines" .. standard cases	----------	----------	----------	----------	2, 616, 530	7, 302, 273
Meal .... tons	(1)	(1)	2, 426	$77, 661	118, 330	3, 852, 597
Oil .... gallons	(1)	(1)	470, 836	139, 375	25, 467, 136	8, 143, 603
Rockfishes, fresh fillets .... pounds	(1)	(1)	(1)	(1)	920, 000	118, 600

See footnotes at end of table.

Industries related to the fisheries of the Pacific Coast States, 1936—Continued

PRODUCTS MANUFACTURED—Continued

Item	Washington		Oregon		California	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
By manufacturing firms—Continued.						
Sablefish:						
Fresh fillets pounds					165,000	$17,800
Kippered do	344,361	$55,913			(1)	(1)
Salted do	241,067	13,423	(1)	(1)		
Salmon:						
Salted:						
Mild cured [2] do	4,334,175	860,640	885,940	$180,281	1,847,087	405,831
Eggs for caviar do	120,208	11,111	(1)	(1)		
Kippered do	1,884,127	304,018	55,946	10,914		
Smoked do	116,560	19,333	(1)	(1)	186,857	83,715
Canned:						
Blueback, red, or sockeye standard cases	63,863	880,669	4,822	67,546		
Chinook or king do	62,522	777,611	163,745	2,239,659		
Chum or keta do	105,131	385,518	38,743	140,663		
Humpback or pink do	170	891				
Silver or coho do	35,227	314,849	34,069	297,392		
Steelhead trout do	3,735	37,031	15,547	167,609		
Eggs for bait do	2,428	49,941	(1)	(1)		
Oil, edible gallons			13,372	20,058		
Sea bass:						
Black, fresh steaks pounds					240,000	29,100
White, fresh fillets do					165,000	29,325
Shad:						
Canned standard cases	1,570	3,925	2,561	6,542	13,214	36,338
Roe, canned do	(1)	(1)	857	24,827	(1)	(1)
Sheepshead, fresh fillets pounds					35,000	5,250
Swordfish, fresh steaks do					340,000	83,375
Totuava, fresh steaks do					675,000	108,000
Tuna and tunalike fishes:						
Canned:						
Albacore standard cases					63,120	418,003
Bluefin do					314,019	1,633,701
Bonito do					131,137	577,098
Striped do					428,848	2,215,513
"Tonno" do					172,326	1,212,103
Yellowfin do					1,437,236	8,079,499
Yellowtail do					134,048	579,474
Meal tons					8,822	269,155
Oil gallons					166,161	34,767
Abalone, steaks pounds					656,700	199,402
Clams, hard:						
Canned:						
Whole standard cases	24,824	99,706				
Minced do	23,599	107,523				
Juice do	5,224	11,329				
Fresh shucked gallons	3,205	3,989	(1)	(1)		
Shells, crushed for poultry feed tons	1,419	14,280				
Clams, razor:						
Canned:						
Whole standard cases	2,492	23,006	(1)	(1)		
Minced do	36,017	296,719	998	7,138		
Crabs:						
Canned do			164	4,828		
Meat, packaged, fresh cooked pounds	91,074	39,613	308,054	126,065		
Oysters:						
Japanese:						
Fresh shucked gallons	347,592	422,307	70,324	87,390	(1)	(1)
Canned standard cases	118,853	504,270				
Soup, canned do	16,139	80,331				
Native, fresh shucked gallons	15,623	113,886	8,267	62,352	(1)	(1)
Shell products:						
Poultry feed tons	1,869	18,896	(1)	(1)	14,648	74,004
Lime do	882	6,906	(1)	(1)	(1)	(1)
Shrimp, bran and meal do					217	4,340
Squid, canned standard cases					8,068	30,708
Unclassified:						
Packaged pounds	[3] 124,578	[3] 17,786	(4)	(4)	(4)	(4)
Salted do	[5] 1,327,061	[5] 69,945	[6] 4,304	[6] 1,292	[7] 1,195,191	[7] 135,310
Smoked do	(4)	(4)	[8] 42,079	[8] 9,738	[9] 182,781	[9] 33,717
Canned:						
Cat and dog food standard cases					222,136	656,703
Other do	[10] 921	[10] 9,561	[11] 1,092	[11] 16,755	(4)	(4)
Meal tons	[12] 1,733	[12] 74,195	(4)	(4)	[13] 1,520	[13] 33,363
Oil gallons	[14] 289,796	[14] 963,590	(4)	(4)	[15] 176,071	[15] 787,832
Miscellaneous		[16] 10,521		[17] 30,062		[18] 666,873
Total		6,845,122		3,718,147		41,934,901

See footnotes at end of table.

Industries related to the fisheries of the Pacific Coast States, 1936—Continued

PRODUCTS MANUFACTURED—Continued

Item	Washington		Oregon		California	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
By fishermen:						
Cod, green salted [2] pounds	2, 283, 118	$114, 335			1, 596, 539	$79, 800
Cod, tongues, salted do	11, 650	941				
Sablefish, salted do	32, 830	1, 313				
Crab meat, packaged, fresh cooked pounds			5, 186	$1, 971		
Clams, mixed, fresh shucked gallons			3, 440	3, 784		
Scallops, bay, fresh shucked do	570	1, 282				
Shrimp:						
Dried pounds					153, 656	24, 585
Bran tons					167	3, 348
Shark-liver oil gallons	2, 500	650				
Total		118, 521		5, 755		107, 733
Grand total		6, 963, 643		3, 723, 902		42, 042, 634

[1] The production of this item has been included under "Unclassified products."

[2] This item is usually an intermediate product, and although included in the total, may be shown in its final stage of processing in this or another State.

[3] Includes fresh fillets of cod, "lingcod," and rockfishes; frozen steaks of cod and salmon; and fresh-shucked oysters and bay scallops.

[4] This item has been included with "Miscellaneous."

[5] Includes green salted cod in process, partly boned; spiced and pickled herring; salmon bellies; and sturgeon eggs for caviar.

[6] Includes salted sablefish, and salmon, and sturgeon eggs for caviar.

[7] Includes salted barracuda, black sea bass, cabrilla, pilchards, tuna, and yellowtail; pickled and spiced herring; boneless and absolutely boneless salted cod; green salted cod in process, partly boned; and mild-cured shad.

[8] Includes smoked salmon, shad, smelt, and kippered sturgeon.

[9] Includes smoked chub, mackerel, sablefish, swordfish, and tuna.

[10] Includes canned salted cod, shad roe, hard clam chowder, and hard clams steamed in the shell.

[11] Includes canned smoked salmon, salmon eggs for bait, kippered sturgeon, whole razor clams, and razor clam juice.

[12] Includes pilchard, salmon, and salmon-egg meal.

[13] Includes abalone and miscellaneous fish meal.

[14] Includes pilchard and salmon oils, and miscellaneous liver oils.

[15] Includes whale, sperm, and miscellaneous fish and liver oils.

[16] Includes smoked herring bloaters and kelp products.

[17] Includes fresh fillets of flounders, "lingcod," and rockfishes; fresh-shucked hard clams; salmon and salmon-egg meal; salmon oil; crushed oyster shells for poultry feed and lime; and marine-shell novelties.

[18] Includes fresh-shucked eastern, Japanese, and native oysters, canned shad roe, dried shrimp, liquid glue, kelp products, oyster-shell lime, and marine-shell novelties.

NOTE.—The total value of manufactured products in the Pacific Coast States was as follows: By manufacturing establishments, $52,498,170; and by fishermen, $232,009. Some of the above products may have been imported from another State or foreign country; therefore, they cannot be correlated directly with the catch within the State. All of the persons engaged in the preparation of fishermen's manufactured products have been included as fishermen.

WASHINGTON

Fisheries of Washington, 1936

CATCH: BY DISTRICTS

Species	Puget Sound district		Coastal district		Columbia River district	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Carp					87, 300	$2, 382
Cod [1]	7, 771, 300	$122, 866				
Flounders:						
"Sole"	4, 503, 200	91, 438	20, 300	$508		
Other	291, 200	6, 435				
Grayfish	330, 700	764				
Halibut	24, 061, 000	2, 067, 103	12, 500	776	17, 400	1, 455
Herring	989, 700	9, 400				
"Lingcod"	1, 506, 400	39, 561	53, 100	856	6, 900	196
Perch	101, 600	3, 180	1, 000	30		
Pilchard or sardine	6, 600	99	[2] 13, 107, 800	[2] 65, 539		
Rockfishes	533, 100	16, 705	17, 700	239	16, 100	425
Sablefish	2, 577, 800	102, 124			189, 200	6, 481
Salmon:						
Blueback, red, or sockeye	3, 179, 200	272, 464	192, 600	20, 269	132, 900	14, 619
Chinook or king	7, 260, 700	511, 932	1, 733, 300	135, 558	3, 995, 100	318, 606

[1] Nearly all of the cod were taken off Alaska.

[2] The Washington coast pilchard fishery was inaugurated in 1936 as the result of legislation revising the State tax to permit the use of this fish for reduction purposes.

Fisheries of Washington, 1936—Continued

CATCH: BY DISTRICTS—Continued

Species	Puget Sound district		Coastal district		Columbia River district	
FISH—continued						
Salmon—Continued.	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Chum or keta	8, 581, 300	$172, 376	2, 064, 500	$24, 389	586, 700	$5, 867
Humpback or pink	123, 800	2, 482	--------	--------	--------	--------
Silver or coho	6, 117, 400	304, 410	2, 519, 900	119, 040	939, 600	42, 316
Shad	--------	--------	--------	--------	57, 400	1, 722
Smelt:						
Eulachon	--------	--------	--------	--------	2, 247, 600	55, 628
Surf or silver	505, 800	31, 227	66, 100	2, 710	--------	--------
Steelhead trout	--------	--------	[3] 49, 600	[3] 3, 721	402, 600	20, 452
Sturgeon	--------	--------	38, 300	2, 373	41, 100	1, 120
Total	68, 440, 800	3, 754, 566	19, 876, 700	376, 008	8, 719, 900	471, 269
SHELLFISH, ETC.						
Crabs	386, 800	21, 276	1, 394, 100	107, 067	--------	--------
Shrimp	101, 600	13, 208	--------	--------	--------	--------
Clams:						
Hard:						
Butter	428, 700	26, 792	--------	--------	--------	--------
Little neck	449, 100	37, 423	--------	--------	--------	--------
Razor	--------	--------	860, 200	128, 013	--------	--------
Octopus	100, 300	4, 092	--------	--------	--------	--------
Oysters, market:						
Eastern	--------	--------	1, 300	337	--------	--------
Japanese	952, 000	63, 926	5, 354, 300	382, 451	--------	--------
Native	299, 500	205, 004	5, 300	2, 477	--------	--------
Scallops, bay	21, 800	5, 128	--------	--------	--------	--------
Squid	16, 300	929	--------	--------	--------	--------
Trepang	9, 700	387	--------	--------	--------	--------
Total	2, 765, 800	378, 165	7, 615, 200	620, 345	--------	--------
Grand total	71, 206, 600	4, 132, 731	27, 491, 900	996, 353	8, 719, 900	471, 269

[3] Steelhead trout shown for the coastal district of Washington were taken on Indian reservations.

Fisheries of the Puget Sound district of Washington, 1936

OPERATING UNITS: BY GEAR

Item	Purse seines			Haul seines	Gill nets		Lines		Pound nets [2]	Brush weirs
	Salmon	Sardine [1]	Herring		Drift	Set [2]	Trawl, set, and hand	Troll		
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	1, 344	354	7	36	-------	-------	1, 234	284	-------	-------
On boats and shore	8	-------	-------	528	346	6	112	310	4	8
Total	1, 352	354	7	564	346	6	1, 346	594	4	8
Vessels:										
Motor	170	34	2	9	-------	-------	153	150	-------	-------
Net tonnage	3, 588	1, 617	34	84	-------	-------	4, 294	1, 136	-------	-------
Sail	-------	-------	-------	-------	-------	-------	3	-------	-------	-------
Net tonnage	-------	-------	-------	-------	-------	-------	1, 346	-------	-------	-------
Total vessels	170	34	2	9	-------	-------	156	150	-------	-------
Total net tonnage	3, 588	1, 617	34	84	-------	-------	5, 640	1, 136	-------	-------
Boats:										
Motor	2	-------	-------	110	323	6	58	207	2	4
Other	-------	-------	-------	96	-------	-------	36	-------	-------	4
Accessory boats	172	34	2	-------	-------	-------	64	-------	-------	-------
Apparatus:										
Number	172	34	2	196	323	6	27, 571	1, 790	2	8
Length, yards	94, 300	12, 716	234	14, 142	-------	-------	-------	-------	-------	-------
Square yards	-------	-------	-------	-------	487, 730	1, 440	-------	-------	-------	-------
Hooks	-------	-------	-------	-------	-------	-------	568, 190	7, 912	-------	-------

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[1] Operated in the Washington and Oregon coasts pilchard fishery. See separate sections for catch statistics.

[2] Fished only on Indian reservations.

Fisheries of the Puget Sound district of Washington, 1936—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Dip nets	Reef nets	Beam trawls	Otter trawls	Traps		Tongs and rakes, oyster	Dredges, oyster	Shovels	Total, exclusive of duplication
					Crab	Octopus				
	Number	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Fishermen:										
On vessels			18	122				3		3,321
On boats and shore	31	76	2	32	114	30	150		386	1,940
Total	31	76	20	154	114	30	150	3	386	5,261
Vessels:										
Motor			9	37				1		511
Net tonnage			83	533				12		10,421
Sail										3
Net tonnage										1,346
Total vessels			9	37				1		514
Total net tonnage			83	533				12		11,767
Boats:										
Motor	22	23	1	12	95	12	38			810
Other	8	46			19	18	96			303
Accessory boats										265
Apparatus:										
Number	31	23	10	49	3,765	570	110	2	386	
Yards at mouth			66	675				2		

CATCH: BY GEAR

Species	Purse seines		Haul seines		Gill nets			
					Drift		Set [1]	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Cod			2,200	$43				
Flounders, other than "sole"			3,900	86				
Herring	113,800	$1,097	25,500	434				
"Lingcod"	400	8	3,300	63				
Perch			97,900	3,064				
Pilchard or sardine			6,600	99				
Rockfishes	300	5	16,300	424				
Salmon: [4]								
Blueback, red, or sockeye	2,904,700	248,933			134,100	$11,492		
Chinook or king	531,500	23,014	1,000	45	1,358,100	73,337	5,200	$236
Chum or keta	5,716,300	113,783	1,300	29	2,683,500	56,109	14,100	192
Humpback or pink	122,000	2,440						
Silver or coho	2,864,400	121,403	100	5	614,700	31,964	12,700	472
Smelt, surf or silver	15,800	847	490,000	30,380				
Total	12,269,200	511,530	648,100	34,672	4,790,400	172,902	32,000	900
SHELLFISH, ETC.								
Octopus			400	16				
Squid			16,300	929				
Total			16,700	945				
Grand total	12,269,200	511,530	664,800	35,617	4,790,400	172,902	32,000	900

See footnotes at end of table.

Fisheries of the Puget Sound district of Washington, 1936—Continued

CATCH: BY GEAR—Continued

Species	Lines				Pound nets[1]		Brush weirs	
	Trawl, set, and hand[2]		Troll					
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Cod	[3] 7,368,200	$114,404	100	$2				
Flounders, "sole"	2,400	72						
Grayfish	330,700	764						
Halibut	24,019,300	2,064,432	35,800	2,294				
Herring							843,600	$7,761
"Lingcod"	1,084,000	30,878	62,800	1,068				
Perch	200	6						
Rockfishes	439,100	14,325	18,900	284				
Sablefish	2,554,800	101,495						
Salmon:[4]								
Blueback, red, or sockeye			600	59	6,900	$591		
Chinook or king			5,110,400	403,722	237,100	10,788		
Chum or keta			1,200	14	129,400	1,765		
Humpback or pink			1,600	38				
Silver or coho			2,507,000	146,158	30,700	1,142		
Total	35,798,700	2,326,376	7,738,400	553,639	404,100	14,286	843,600	7,761
SHELLFISH, ETC.								
Octopus	200	8						
Grand total	35,798,900	2,326,384	7,738,400	553,639	404,100	14,286	843,600	7,761

Species	Dip nets		Reef nets		Beam trawls		Otter trawls	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Cod							400,800	$8,417
Flounders:								
"Sole"							4,500,800	91,366
Other							287,300	6,349
Halibut							5,900	377
Herring	6,800	$108						
"Lingcod"							355,900	7,544
Perch							3,500	110
Rockfishes							58,500	1,667
Sablefish							23,000	629
Salmon:[4]								
Blueback, red or sockeye			132,900	$11,389				
Chinook or king			17,400	790				
Chum or keta			35,500	484				
Humpback or pink			200	4				
Silver or coho			87,800	3,266				
Total	6,800	108	273,800	15,933			5,635,700	116,459
SHELLFISH, ETC.								
Shrimp					101,600	$13,208		
Octopus							4,500	184
Scallops, bay[5]					21,800	5,128		
Trepang					9,700	387		
Total					133,100	18,723	4,500	184
Grand total	6,800	108	273,800	15,933	133,100	18,723	5,640,200	116,643

See footnotes at end of table.

Fisheries of the Puget Sound district of Washington, 1936—Continued

CATCH: BY GEAR—Continued

Species	Traps				Dredges, tongs, and rakes		Shovels	
	Crab		Octopus					
SHELLFISH, ETC.	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Crabs [5]	386, 800	$21, 276	--------	--------	--------	--------	--------	--------
Clams, hard: [6]								
Butter	--------	--------	--------	--------	--------	--------	428, 700	$26, 792
Little neck	--------	--------	--------	--------	--------	--------	449, 100	37, 423
Octopus	--------	--------	95, 200	$3, 884	--------	--------	--------	--------
Oysters, market: [7]								
Japanese	--------	--------	--------	--------	952, 000	$63, 926	--------	--------
Native	--------	--------	--------	--------	299, 500	205, 004	--------	--------
Total	386, 800	21, 276	95, 200	3, 884	1, 251, 500	268, 930	877, 800	64, 215

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[1] Fished only on Indian reservations.

[2] In addition, the vessels of the Pacific coast halibut fleet landed approximately 655,000 pounds of halibut, sablefish, and "lingcod" livers at Seattle, valued at $295,000.

[3] These cod were taken off Alaska.

[4] Statistics on the catch of salmon except those taken by troll lines, are reported to the State in number rather than pounds. The factors used in the above table for converting number of salmon to weight in pounds were as follows: Blueback, red, or sockeye, 7 pounds; chinook or king, 22 pounds; chum or keta, 11 pounds; humpback or pink, 5 pounds; and silver or coho, 8 pounds.

[5] The weight of crabs shown is based on an average of 20 pounds per dozen.

[6] Statistics on hard clams are based on yields of 28 percent edible meats for butter clams and 24 percent for little neck clams.

[7] Statistics on oysters shown are based on yields of 18 percent edible meats for native oysters and 10 percent for Japanese oysters.

[8] The weight of bay scallops is based on a yield of 17 percent edible meat.

Fisheries of the coastal district of Washington, 1936

OPERATING UNITS: BY GEAR [1]

Item	Haul seines	Gill nets		Lines, troll	Dip nets	Traps, crab	Tongs and rakes, oyster	Dredges, oyster	Shovels	Total, exclusive of duplication
		Drift	Set							
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	--------	--------	--------	52	--------	12	--------	8	--------	68
On boats and shore	22	228	110	132	60	82	235	--------	3, 288	3, 962
Total	22	228	110	184	60	94	235	8	3, 288	4, 030
Vessels, motor	--------	--------	--------	28	--------	6	--------	2	--------	34
Net tonnage	--------	--------	--------	201	--------	55	--------	13	--------	252
Boats:										
Motor	--------	188	78	83	10	49	62	--------	--------	412
Other	4	--------	32	--------	--------	--------	150	2	--------	184
Apparatus:										
Number	4	188	110	555	60	3, 610	190	4	3, 288	--------
Length, yards	280	--------	--------	--------	--------	--------	--------	--------	--------	--------
Square yards	--------	358, 608	27, 500	--------	--------	--------	--------	--------	--------	--------
Yards at mouth	--------	--------	--------	--------	--------	--------	--------	8	--------	--------
Hooks	--------	--------	--------	2, 498	--------	--------	--------	--------	--------	--------

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[1] In addition a combined fleet of 16 Puget Sound and California purse seine vessels operated in the Washington coast pilchard fishery. These vessels were manned by a total of 163 fishermen and had an aggregate capacity of 654 net tons. Of the total vessels 15 were from Puget Sound and 1 from California. For detailed statistics regarding the operating units in this fishery refer to the gear tables in the Puget Sound and California sections of this report.

Fisheries of the coastal district of Washington, 1936—Continued

CATCH: BY GEAR

Species	Purse seines		Haul seines [1]		Gill nets			
					Drift		Set [2]	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Perch			1,000	$30				
Pilchard or sardine	13,107,800	$65,539						
Salmon: [3]								
Blueback, red, or sockeye							185,400	$19,512
Chinook or king					472,100	$24,078	165,400	6,283
Chum or keta					1,022,300	12,063	1,036,900	12,235
Silver or coho			47,100	2,117	594,300	29,714	539,100	24,257
Smelt, surf or silver			30,200	1,238				
Steelhead trout [4]							49,600	3,721
Sturgeon					38,300	2,373		
Total	13,107,800	65,539	78,300	3,385	2,127,000	68,228	1,976,400	66,008

Species	Lines, troll		Dip nets		Otter trawls	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Flounders, "sole"					20,300	$508
Halibut	12,500	$776				
"Lingcod"	53,100	856				
Rockfishes	17,700	239				
Salmon: [3]						
Blueback, red, or sockeye			7,200	$757		
Chinook or king	1,095,800	105,197				
Chum or keta	5,300	91				
Silver or coho	1,339,400	62,952				
Smelt, surf or silver			35,900	1,472		
Total	2,523,800	170,111	43,100	2,229	20,300	508

Species	Traps		Dredges, tongs, and rakes		Shovels	
SHELLFISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Crabs [5]	1,394,100	$107,067				
Clams, razor [6]					860,200	$128,013
Oysters, market: [7]						
Eastern			1,300	$337		
Japanese			5,354,300	382,451		
Native			5,300	2,477		
Total	1,394,100	107,067	5,360,900	385,265	860,200	128,013

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[1] The salmon were caught by Indians fishing on their reservations.

[2] Fished by Indians on their reservations.

[3] Statistics on the the catch of salmon except those taken by troll lines are reported to the State in number rather than pounds. The factors used in the above table for converting number of salmon to weight in pounds were as follows: Blueback, red, or sockeye, 4.75 pounds; chinook or king, 20 pounds; chum or keta, 11 pounds; silver or coho, 10 pounds; and steelhead trout, 10 pounds.

[4] Steelhead trout shown in this table were taken on Indian reservations.

[5] The weight of crabs shown is based on an average of 22 pounds per dozen.

[6] The weight of razor clams shown is in pounds of edible meats, based on a yield of 42 percent of the round weight.

[7] The statistics on oysters used in this table are based on a yield of 14 percent of edible meats for Japanese and native oysters, and 13 percent for eastern oysters.

Fisheries of the Columbia River district of Washington, 1936

OPERATING UNITS: BY GEAR

Item	Haul seines	Gill nets, drift	Lines		Dip nets	Total, exclusive of duplication
			Trawl and set	Troll		
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels			7	8		15
On boats and shore	6	646	48	69	219	911
Total	6	646	55	77	219	926
Vessels, motor			2	4		6
Net tonnage			31	34		65
Boats:						
Motor	2	484	38	40	105	628
Other	2		10		6	18
Apparatus:						
Number	2	484	344	204	219	
Length, yards	251					
Square yards		1, 339, 712				
Hooks			11, 016	714		

CATCH: BY GEAR

Species	Haul seines		Gill nets, drift		Lines				Dip nets	
					Trawl and set		Troll			
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Carp	87, 300	$2, 382								
Halibut					17, 400	$1, 455				
"Lingcod"					6, 900	196				
Rockfishes					16, 100	425				
Sablefish					189, 200	6, 481				
Salmon:										
Blueback, red, or sockeye			28, 800	$3, 168					104, 100	$11, 451
Chinook or king			3, 414, 300	271, 095			332, 100	$27, 764	248, 700	19, 747
Chum or keta			586, 700	5, 867						
Silver or cobo			339, 100	14, 513			600, 500	27, 803		
Shad			57, 400	1, 722						
Smelt, eulachon			99, 200	4, 067					2, 148, 400	51, 561
Steelhead trout			359, 100	18, 242			1, 200	61	42, 300	2, 149
Sturgeon			29, 000	757	12, 100	363				
Total	87, 300	2, 382	4, 913, 600	319, 431	241, 700	8, 920	933, 800	55, 628	2, 543, 500	84, 908

OREGON

Fisheries of Oregon, 1936

CATCH: BY DISTRICTS

Species	Columbia River district		Coastal district	
FISH	*Pounds*	*Value*	*Pounds*	*Value*
Cod	600	$9		
Flounders:				
"Sole"	140, 800	2, 819	7, 600	$165
Other	5, 100	81	500	10
Halibut	163, 800	13, 176	113, 500	8, 743
Herring			23, 100	268
"Lingcod"	104, 500	2, 568	64, 200	1, 571
Perch			11, 400	241
Pilchard or sardine			28, 393, 300	141, 966
Rockfishes	61, 000	1, 693	60, 100	1, 629
Sablefish	160, 400	4, 938	110, 100	3, 218
Salmon:				
Blueback, red, or sockeye	284, 700	30, 223		
Chinook or king	12, 519, 100	996, 721	2, 001, 400	142, 003
Chum or keta	556, 800	5, 568	1, 320, 300	14, 523
Silver or coho	1, 589, 500	70, 778	3, 310, 200	143, 151
Shad	249, 400	7, 479	416, 100	12, 483

Fisheries of Oregon, 1936—Continued

CATCH: BY DISTRICTS—Continued

Species	Columbia River district		Coastal district	
	Pounds	*Value*	*Pounds*	*Value*
FISH—continued				
Smelts:				
Eulachon	312, 900	$7, 520		
Other			4, 700	$161
Steelhead trout	1, 904, 400	96, 745	336, 700	23, 232
Striped bass			29, 100	1, 950
Sturgeon	100, 700	2, 809	2, 200	66
Tuna, albacore	25, 600	1, 778	2, 000	130
Total	18, 179, 300	1, 244, 905	36, 206, 500	495, 510
SHELLFISH				
Crabs			3, 081, 600	218, 511
Crawfish, fresh water	86, 900	9, 559		
Clams:				
Razor			64, 500	12, 286
Mixed			85, 800	6, 541
Oysters, market:				
Japanese			28, 900	2, 475
Native			7, 900	5, 283
Total	86, 900	9, 559	3, 268, 700	245, 096
Grand total	18, 266, 200	1, 254, 464	39, 475, 200	740, 606

Fisheries of the Columbia River district of Oregon, 1936

OPERATING UNITS: BY GEAR

Item	Purse seines, pilchard[1]	Haul seines	Gill nets		Lines		Pound nets	Dip nets	Otter trawls	Traps, crawfish	Total, exclusive of duplication
			Drift, salmon	Set, salmon	Trawl and set	Troll					
	Number	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Fishermen:											
On vessels	12				20	65			3		97
On boats and shore		506	1, 100	71	79	157	64	252		34	2, 174
Total	12	506	1, 100	71	99	222	64	252	3	34	2, 271
Vessels, motors	1				5	34			1		40
Net tonnage	105				77	257			13		439
Boats:											
Motor		23	755	65	71	128	30	10		23	1, 054
Other		42		6	8		30	6		11	99
Accessory boats	1										1
Apparatus:											
Number	1	42	755	123	625	844	38	252	1	1, 534	
Length, yards	500	22, 700									
Square yards			2, 409, 205	34, 440							
Yards at mouth									24		
Hooks					18, 845	3, 580					

[1] Operated in the pilchard fishery of the Oregon coast and California.

Fisheries of the Columbia River district of Oregon, 1936—Continued

CATCH: BY GEAR

Species	Haul seines		Gill nets				Lines	
			Drift		Set		Trawl and set	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Flounders:								
"Sole"							23,400	$679
Other							200	3
Halibut							161,100	12,994
"Lingcod"							85,900	2,159
Rockfishes							54,900	1,621
Sablefish							160,400	4,938
Salmon:								
Blueback, red, or sockeye	47,700	$5,247	113,500	$12,031	4,900	$519		
Chinook or king	2,261,100	179,531	7,779,800	617,716	74,400	5,907		
Chum or keta	62,500	625	464,300	4,643	100	1		
Silver or coho	92,800	3,972	544,500	23,305	400	17		
Shad	110,100	3,300	137,900	4,137	100	3		
Smelt, eulachon			210,400	5,470				
Steelhead trout	730,700	37,119	733,500	37,262	14,000	713		
Sturgeon	2,400	67	65,300	1,759	300	9	31,900	957
Total	3,307,300	229,861	10,049,200	706,323	94,200	7,169	517,800	23,351

Species	Lines—Contd.		Pound nets		Dip nets		Otter trawls		Traps	
	Troll									
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Cod							600	$9		
Flounders:										
"Sole"							117,400	2,140		
Other							4,900	78		
Halibut	500	$40					2,200	142		
"Lingcod"	5,400	146					13,200	263		
Rockfishes							6,100	72		
Salmon:										
Blueback, red, or sockeye			15,300	$1,683	103,300	$10,743				
Chinook or king	643,900	53,831	472,100	37,485	1,287,800	102,251				
Chum or keta			29,900	299						
Silver or coho	784,800	36,336	167,000	7,148						
Shad			1,300	39						
Smelt, eulachon					102,500	2,050				
Steelhead trout	200	10	192,700	9,789	233,300	11,852				
Sturgeon			500	8	300	9				
Tuna, albacore	25,600	1,778								
Total	1,460,400	92,141	878,800	56,451	1,727,200	126,905	144,400	2,704		
SHELLFISH										
Crawfish, fresh water									86,900	$9,559
Grand total	1,460,400	92,141	878,800	56,451	1,727,200	126,905	144,400	2,704	86,900	9,559

Fisheries of the coastal district of Oregon, 1936

OPERATING UNITS: BY GEAR [1]

Item	Haul seines	Gill nets		Lines		Otter trawls	Traps, crab	Tongs and rakes, oyster	Shovels	Total, exclusive of duplication
		Drift	Set	Trawl and set	Troll					
	Number	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Fishermen:										
On vessels				8	27	3	10			41
On boats and shore	22	498	373	29	145		274	8	194	1,415
Total	22	498	373	37	172	3	284	8	194	1,456
Vessels, motor				2	15	1	5			20
Net tonnage				24	106	13	41			157
Boats:										
Motor	7	451	248	29	119		268	2		1,002
Other	7		102					3	18	130
Apparatus:										
Number	7	451	936	203	679	1	17,745	8	194	
Length, yards	1,040									
Square yards		635,459	336,960							
Yards at mouth						20				
Hooks				6,380	3,055					

CATCH: BY GEAR

Species	Purse seines, pilchard		Haul seines		Gill nets, drift and set		Lines	
							Trawl and set	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Flounders:								
"Sole"							3,700	$83
Other							400	8
Halibut							109,400	8,435
Herring			10,400	$77	12,700	$191		
"Lingcod"							46,100	1,134
Perch			10,300	219	1,100	22		
Pilchard or sardine	28,393,300	$141,966						
Rockfishes							47,500	1,227
Sablefish							110,100	3,218
Salmon:								
Chinook or king					1,209,800	76,459		
Chum or keta					1,320,300	14,523		
Silver or coho					2,339,100	99,646		
Shad					416,100	12,483		
Smelts			4,000	138	700	23		
Steelhead trout					336,700	23,232		
Striped bass					29,100	1,950		
Sturgeon					2,200	66		
Total	28,393,300	141,966	24,700	434	5,667,800	228,595	317,200	14,105

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[1] In addition a combined fleet of 59 Oregon, Washington, and California purse seine vessels operated in the Oregon coast pilchard fishery. These vessels were manned by a total of 612 fishermen and had an aggregate capacity of 3,226 net tons. Of the total vessels, 1 was from the Columbia River district of Oregon, 23 from Washington, and 35 were from California. For detailed statistics regarding the operating units in this fishery refer to the gear tables in the Oregon Columbia River, Washington and California sections of this report.

Fisheries of the coastal district of Oregon, 1936—Continued

CATCH: BY GEAR—Continued

Species	Lines—Contd.: Troll		Otter trawls		Traps		Tongs and rakes		Shovels	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
FISH										
Flounders:										
"Sole"			3, 900	$82						
Other			100	2						
Halibut	4, 100	$308								
"Lingcod"	11, 900	283	6, 200	154						
Rockfishes	11, 800	366	800	36						
Salmon:										
Chinook or king	791, 600	65, 544								
Silver or coho	971, 100	43, 505								
Tuna, albacore	2, 000	130								
Total	1, 792, 500	110, 136	11, 000	274						
SHELLFISH										
Crabs					3, 081, 600	$218, 511				
Clams:										
Razor[1]									64, 500	$12, 286
Mixed[2]									85, 800	6, 541
Oysters, market:										
Japanese							28, 900	$2, 475		
Native							7, 900	5, 283		
Total					3, 081, 600	218, 511	36, 800	7, 758	150, 300	18, 827
Grand total	1, 792, 500	110, 136	11, 000	274	3, 081, 600	218, 511	36, 800	7, 758	150, 300	18, 827

[1] The weight of razor clams is that of edible meats, based on a yield of 42 percent of the round weight.

[2] Mixed clams consist principally of eastern soft-shell clams. The weight shown is that of edible meats, based on a yield of 21 percent of the round weight.

CALIFORNIA

Fisheries of California, 1936

CATCH: BY DISTRICTS

Species	Northern district		San Francisco district[1]		Monterey district	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Anchovies	2, 000	$35	133, 000	$1, 330	30, 200	$387
Carp			108, 700	1, 346		
Catfish			301, 700	36, 769	2, 900	392
Cod[1]			5, 150, 100	79, 800		
Flounders:						
"California halibut"			9, 600	1, 346	47, 100	4, 468
"Sole"	2, 082, 200	99, 374	4, 917, 000	284, 873	944, 200	48, 561
Other	261, 000	12, 947	982, 800	63, 642	106, 800	5, 237
Grayfish	900	5	154, 700	773	17, 900	234
Hake	500	5	39, 000	390	7, 200	72
Halibut	524, 000	39, 115				
Hardhead			106, 700	5, 485		
Herring	5, 800	49	831, 600	3, 883	1, 300	17
Horse mackerel					30, 800	2, 041
Kingfish			12, 800	385	209, 900	7, 645
"Lingcod"	289, 200	10, 128	301, 500	12, 060	161, 300	7, 897
Mackerel	500	12	44, 500	890	5, 418, 400	62, 086
Perch	13, 400	394	95, 700	3, 756	45, 300	1, 836
Pilchard or sardine			789, 055, 500	3, 836, 388	402, 943, 000	1, 940, 828
Pompano					300	175
Rockfishes	318, 000	10, 925	635, 200	27, 646	2, 712, 500	89, 268
Sablefish	585, 200	18, 175	36, 600	1, 189	225, 000	4, 980
Salmon	3, 479, 800	259, 754	1, 395, 800	88, 054	144, 900	12, 694
Sculpin			6, 300	126	11, 800	124
Sea bass, white			4, 500	800	7, 000	716
Shad			2, 273, 000	45, 760		
Skates	7, 200	72	280, 200	2, 802	53, 000	687
Smelt	16, 700	609	380, 500	13, 658	135, 200	5, 994
Splittail			29, 300	528		

[1] The catch of cod was taken off Alaska.

Fisheries of California, 1936—Continued

CATCH: BY DISTRICTS—Continued

Species	Northern district		San Francisco district		Monterey district	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
FISH—continued						
Squawfish			500	$24		
Suckers			48, 100	706		
Tomcod			4, 200	83		
Tuna and tunalike fishes:						
Albacore					42, 500	$3, 761
Bonito					500	30
Whitebait	177, 500	$7, 294	13, 200	824	7, 100	615
Other fish	56, 600	592	99, 900	1, 004	13, 900	145
Total	7, 820, 500	459, 485	807, 452, 200	4, 516, 320	413, 320, 000	2, 200, 890
SHELLFISH, ETC.						
Crabs	229, 900	16, 577	2, 075, 600	237, 827	6, 200	556
Shrimp			2, 240, 800	31, 640	1, 900	405
Abalone			6, 700	673	315, 100	58, 161
Clams:						
Hard	8, 200	839	1, 600	438		
Pismo					5, 100	1, 240
Soft			29, 100	6, 056		
Octopus	800	34	12, 300	736	48, 700	2, 825
Oysters, market:						
Eastern			58, 900	18, 320		
Japanese			40, 200	7, 535	1, 200	278
Native			4, 300	1, 078		
Squid			2, 800	166	933, 200	23, 376
Other shellfish					100	8
Total	238, 900	17, 450	4, 472, 300	304, 469	1, 311, 500	86, 849
WHALE PRODUCTS						
Whale meat			1, 600, 000	32, 000		
Whale oil			1, 189, 600	49, 952		
Total			2, 789, 600	81, 952		
Grand total	8, 059, 400	476, 935	814, 714, 100	4, 902, 741	414, 631, 500	2, 287, 739

Species	San Pedro district					
	Off California		Off Latin America		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
FISH						
Anchovies	29, 900	$435			29, 900	$435
Barracuda	2, 025, 900	85, 850	305, 300	$25, 305	2, 331, 200	111, 155
Cabrilla			72, 800	2, 796	72, 800	2, 796
Flounders:						
"California halibut"	631, 100	51, 746	182, 900	14, 859	814, 000	66, 605
"Sole"	381, 300	11, 179	100	8	381, 400	11, 187
Other	8, 600	1, 418			8, 600	1, 418
Flyingfish	55, 600	2, 040			55, 600	2, 040
Grayfish	238, 100	7, 619	8, 200	349	246, 300	7, 968
Groupers			20, 700	1, 200	20, 700	1, 200
Hake	4, 100	81			4, 100	81
Herring	200	8			200	8
Horse mackerel	4, 506, 600	35, 340			4, 506, 600	35, 340
Kingfish	427, 900	7, 813			427, 900	7, 813
"Lingcod"	300	12	300	19	600	31
Mackerel	84, 338, 100	774, 435			84, 338, 100	774, 435
Marlin	14, 700	425			14, 700	425
Mullet	6, 700	535			6, 700	535
Perch	53, 000	3, 425			53, 000	3, 425
Pilchard or sardine	252, 937, 000	1, 049, 604			252, 937, 000	1, 049, 604
Pompano	7, 100	3, 348			7, 100	3, 348
Rock bass	207, 000	12, 581	9, 700	604	216, 700	13, 185
Rockfishes	671, 700	24, 467	11, 400	544	683, 100	25, 011
Rudderfishes	43, 900	2, 296			43, 900	2, 296
Sablefish	172, 700	6, 646	13, 900	812	186, 600	7, 458
Salmon	1, 000	96			1, 000	96
Sculpin	106, 300	8, 716			106, 300	8, 716
Sea bass:						
Black	14, 000	723	281, 200	16, 968	295, 200	17, 691
White	484, 200	33, 382	18, 400	2, 013	502, 600	35, 395
Sheepshead	109, 200	3, 827	2, 000	67	111, 200	3, 894
Skates	28, 800	431	1, 700	45	30, 500	476

Fisheries of California, 1936—Continued

CATCH: BY DISTRICTS—Continued

Species	San Pedro district					
	Off California		Off Latin America		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
FISH—continued						
Smelt	299, 200	$10, 944			299, 200	$10, 944
Spanish mackerel			16, 100	$952	16, 100	952
Swordfish	461, 800	53, 909	1, 700	177	463, 500	54, 086
Tuna, and tunalike fishes:						
Albacore	911, 800	84, 811			911, 800	84, 811
Bluefin	13, 630, 700	667, 532	4, 021, 300	192, 785	17, 652, 000	860, 317
Bonito	1, 280, 400	37, 513	3, 604, 700	114, 029	4, 885, 100	151, 542
Skipjack or striped tuna	5, 134, 300	229, 053	4, 299, 400	184, 471	9, 433, 700	413, 524
Yellowfin	640, 300	34, 473	19, 660, 700	1, 045, 669	20, 301, 000	1, 080, 142
Whitefish	16, 500	952	5, 700	317	22, 200	1, 269
Yellowtail	184, 100	7, 868	1, 963, 700	62, 560	2, 147, 800	70, 428
Other fish	7, 000	248	100	4	7, 100	252
Total	370, 071, 100	3, 255, 781	34, 502. 000	1, 666, 553	404, 573, 100	4, 922, 334
SHELLFISH, ETC.						
Crabs	16, 200	484			16, 200	484
Sea crawfish or spiny lobster	334, 100	55. 461	35, 100	6, 450	369, 200	61, 911
Abalone	338, 600	33, 877			338, 600	33, 877
Clams:						
Hard	5, 100	1, 248			5, 100	1, 248
Pismo	47, 300	9, 482			47, 300	9, 482
Octopus	600	81			600	81
Squid	9, 500	315			9, 500	315
Turtles	500	24			500	24
Other shellfish	300	5			300	5
Total	752, 200	100, 977	35, 100	6, 450	787, 300	107, 427
Grand total	370, 823, 300	3, 356, 758	34, 537, 100	1, 673, 003	405, 360, 400	5, 029, 761

Species	San Diego district					
	Off California		Off Latin America		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
FISH						
Barracuda	221, 900	$8, 177	424, 700	$21, 420	646, 600	$29, 597
Cabrilla			124, 100	3, 879	124, 100	3, 879
Carp	100	5			100	5
Flounders:						
"California halibut"	95, 300	6, 855	62, 400	40, 695	718, 700	47, 550
"Sole"	100	4			100	4
Grayfish	45, 900	426	6, 100	103	52, 000	529
Groupers			39, 800	1, 374	39, 800	1, 374
Herring	1, 500	18			1, 500	18
Horse mackerel	60, 800	363	1, 200	7	62, 000	370
Kingfish	1, 300	34	100	5	1, 400	39
"Lingcod"	2, 000	46	3, 600	136	5, 600	182
Mackerel	9, 026, 600	78, 505	1, 714, 100	15, 787	10, 740, 700	94, 292
Marlin	1, 600	78	300	12	1, 900	90
Mullet	3, 900	252			3, 900	252
Perch	300	14	100	4	400	18
Pilchard or sardine	15, 855, 300	64, 463	700	12	15, 856, 000	64, 475
Pompano	100	21	400	51	500	72
Rock bass	117, 400	4, 975	82, 100	3, 356	199, 500	8, 331
Rockfishes	153, 700	6, 969	98, 100	4, 770	251, 800	11, 739
Sablefish	1, 600	24	500	20	2, 100	44
Sculpin	3, 700	509	700	50	4, 400	559
Sea bass:						
Black	5, 800	286	96, 600	4, 358	102, 400	4, 644
White	69, 400	5, 892	224, 500	18, 869	293, 900	24, 761
Sheepshead	6, 800	265	10, 600	374	17, 400	639
Skates	9, 100	103	2, 000	18	11, 100	121
Smelt	7, 600	215	2, 000	121	9, 600	336
Spanish mackerel			1, 900	56	1, 900	56
Swordfish	90, 200	7, 964	23, 700	2, 143	113, 900	10, 107
Tuna, and tunalike fishes:						
Albacore	2, 400	223			2, 400	223
Bluefin	177, 900	8, 649	1, 095, 000	53, 366	1, 272, 900	62, 015
Bonito	935, 800	27, 098	1, 394, 500	42, 796	2, 330, 300	69, 894
Skipjack or striped tuna	3, 322, 400	149, 490	14, 236, 100	628, 120	17, 558, 500	777, 610
Yellowfin	127, 000	7, 034	57, 924, 700	3, 052, 035	58, 051, 700	3, 059, 069

Fisheries of California, 1936—Continued

CATCH: BY DISTRICTS—Continued

Species	San Diego district					
	Off California		Off Latin America		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
FISH—continued						
Whitefish	10,300	$536	14,000	$718	24,300	$1,254
Yellowtail	69,700	2,946	7,875,000	225,178	7,944,700	228,124
Other fish	200	5	800	21	1,000	26
Total	30,427,700	382,444	86,021,400	4,119,854	116,449,100	4,502,298
SHELLFISH, ETC.						
Sea crawfish or spiny lobster	80,100	12,692	885,700	73,823	965,800	86,515
Turtles	----------	----------	2,200	97	2,200	97
Total	80,100	12,692	887,900	73,920	968,000	86,612
Grand total	30,507,800	395,136	86,909,300	4,193,774	117,417,100	4,588,910

CATCH: BY WATERS

Species	Off California [1]		Off Latin America	
	Pounds	*Value*	*Pounds*	*Value*
FISH				
Anchovies	195,100	$2,187	----------	----------
Barracuda	2,247,800	94,027	730,000	$46,725
Cabrilla	----------	----------	196,900	6,675
Carp	108,800	1,351	----------	----------
Catfish	304,600	37,161	----------	----------
Cod [1]	5,150,100	79,800	----------	----------
Flounders:				
"California halibut"	783,100	64,415	806,300	55,554
"Sole"	8,324,800	443,991	100	8
Other	1,359,200	83,244	----------	----------
Flyingfish	55,600	2,040	----------	----------
Grayfish	457,500	9,057	14,300	452
Groupers	----------	----------	60,500	2,574
Hake	50,800	548	----------	----------
Halibut	524,000	39,115	----------	----------
Hardhead	106,700	5,485	----------	----------
Herring	840,400	3,975	----------	----------
Horse mackerel	4,598,200	37,744	1,200	7
Kingfish	651,900	15,877	100	5
"Lingcod"	754,300	30,143	3,900	155
Mackerel	98,828,100	915,928	1,714,100	15,787
Marlin	16,300	503	300	12
Mullet	10,600	787	----------	----------
Perch	207,700	9,425	100	4
Pilchard or sardine	1,460,790,800	6,891,283	700	12
Pompano	7,500	3,544	400	51
Rock bass	324,400	17,556	91,800	3,960
Rockfishes	4,491,100	159,275	109,500	5,314
Rudderfishes	43,900	2,296	----------	----------
Sablefish	1,021,100	31,014	14,400	832
Salmon	5,021,500	360,598	----------	----------
Sculpin	128,100	9,475	700	50
Sea bass:				
Black	19,800	1,009	377,800	21,326
White	565,100	40,790	242,900	20,882
Shad	2,273,000	45,760	----------	----------
Sheepshead	116,000	4,092	12,600	441
Skates	378,300	4,095	3,700	63
Smelt	839,200	31,420	2,000	121
Spanish mackerel	----------	----------	18,000	1,008
Splittail	29,300	528	----------	----------
Squawfish	500	24	----------	----------
Suckers	48,100	706	----------	----------
Swordfish	552,000	61,873	25,400	2,320
Tomcod	4,200	83	----------	----------

[1] The catch of cod was taken off Alaska.

Fisheries of California, 1936—Continued

CATCH: BY WATERS—Continued

Species	Off California		Off Latin America	
	Pounds	*Value*	*Pounds*	*Value*
FISH—continued				
Tuna and tunalike fishes:				
Albacore	956, 700	$88, 795	--------	--------
Bluefin	13, 808, 600	676, 181	5, 116, 300	$246, 151
Bonito	2, 216, 700	64, 641	4, 999, 200	156, 825
Skipjack or striped tuna	8, 456, 700	378, 543	18, 535, 500	812, 591
Yellowfin	767, 300	41, 507	77, 585, 400	4, 097, 704
Whitebait	197, 800	8, 733	--------	--------
Whitefish	26, 800	1, 488	19, 700	1, 035
Yellowtail	253, 800	10, 814	9, 838, 700	287, 738
Other fish	177, 600	1, 994	900	25
Total	1, 629, 091, 500	10, 814, 920	120, 523, 400	5, 786, 407
SHELLFISH, ETC.				
Crabs	2, 327, 900	255, 444	--------	--------
Sea crawfish or spiny lobster	414, 200	68, 153	920, 800	80, 273
Shrimp	2, 242, 700	32, 045	--------	--------
Abalone	660, 400	92, 711	--------	--------
Clams:				
Hard	14, 900	2, 525	--------	--------
Pismo	52, 400	10, 722	--------	--------
Soft	29, 100	6, 056	--------	--------
Octopus	62, 400	3, 676	--------	--------
Oysters, market:				
Eastern	58, 900	18, 320	--------	--------
Japanese	41, 400	7, 813	--------	--------
Native	4, 300	1, 078	--------	--------
Squid	945, 500	23, 857	--------	--------
Turtles	500	24	2, 200	97
Other shellfish	400	13	--------	--------
Total	6, 855, 000	522, 437	923, 000	80, 370
WHALE PRODUCTS				
Whale meat	1, 600, 000	32, 000	--------	--------
Whale oil	1, 189, 600	49, 952	--------	--------
Total	2, 789, 600	81, 952	--------	--------
Grand total	1, 638, 736, 100	11, 419, 309	121, 446, 400	5, 866, 777

Fisheries of the northern district of California, 1936

OPERATING UNITS: BY GEAR

Item	Gill nets	Lines		Dip nets	Otter trawls	Traps, crab	Shovels	Total, exclusive of duplication
		Set and hand	Troll					
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	--------	15	27	--------	3	2	--------	31
On boats and shore	21	84	201	42	3	40	13	267
Total	21	99	228	42	6	42	13	298
Vessels, motor	--------	6	15	--------	1	1	--------	16
Net tonnage	--------	51	126	--------	9	9	--------	134
Boats, motor	14	67	176	--------	1	37	--------	188
Apparatus:								
Number	20	301	983	42	2	695	13	--------
Square yards	15, 000	--------	--------	--------	--------	--------	--------	--------
Yards at mouth	--------	--------	--------	--------	20	--------	--------	--------
Hooks	--------	33, 789	4, 274	--------	--------	--------	--------	--------

Fisheries of the northern district of California, 1936—Continued

CATCH: BY GEAR

Species	Gill nets		Lines			
			Set and hand		Troll	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Anchovies	2,000	$35				
Flounders:						
"Sole"			400	$12		
Other	12,400	421				
Halibut			475,600	32,301	2,300	$130
Herring	5,800	49				
"Lingcod"			184,100	6,685	15,600	312
Mackerel			500	12		
Perch	11,800	347				
Rockfishes			173,600	5,399	2,600	78
Sablefish			543,000	16,804		
Salmon					3,479,800	259,754
Smelt	14,000	531				
Other fish			5,700	78	1,400	19
Total	46,000	1,383	1,382,900	61,291	3,501,700	260,293
SHELLFISH, ETC.						
Octopus			800	34		
Grand total	46,000	1,383	1,383,700	61,325	3,501,700	260,293

Species	Dip nets		Paranzella nets and otter trawls		Traps		Shovels	
FISH								
Flounders:	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
"Sole"			2,081,800	$99,362				
Other			248,600	12,526				
Grayfish			900	5				
Hake			500	5				
Halibut			46,100	6,684				
"Lingcod"			89,500	3,131				
Perch	1,200	$36	400	11				
Rockfishes			141,800	5,448				
Sablefish			42,200	1,371				
Skates			7,200	72				
Smelt	2,700	78						
Whitebait	177,500	7,924						
Other fish			49,500	495				
Total	181,400	7,408	2,708,500	129,110				
SHELLFISH								
Crabs					229,900	$16,577		
Clams, hard							8,200	$839
Total					229,900	16,577	8,200	839
Grand total	181,400	7,408	2,708,500	129,110	229,900	16,577	8,200	839

NOTE.—The catch by paranzella nets was made by fishermen from the San Francisco district.

Fisheries of the San Francisco district of California, 1936

OPERATING UNITS: BY GEAR

Item	Purse seines		Lampara and ring nets		Haul seines	Gill nets	
	Sardine	Tuna	Mackerel	Sardine		Drift, salmon	Drift, sea bass
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	212	34	9	124			
On boats and shore				25	7	196	4
Total	212	34	9	149	7	196	4
Vessels:							
Motor	19	3	1	11			
Net tonnage	1,223	215	14	130			
Boats:							
Motor				3	3	112	3
Other					1	2	1
Accessory boats	19	3	1	14			
Apparatus:							
Number	19	3	1	14	3	114	4
Length yards	7,731	1,750	360	4,275	567		
Square yards						377,980	8,400

Item	Gill nets—Con.		Lines		Fyke nets	Dip nets	Bag nets, shrimp	Paranzella nets
	Drift, shad	Other	Set and hand	Troll				
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels			84	47			23	95
On boats and shore	242	46	65	228	79	7	24	
Total	242	46	149	275	79	7	47	95
Vessels:								
Motor			1	21			5	18
Net tonnage			10	273			31	246
Sail			2					
Net tonnage			824					
Total vessels			3	21			5	18
Total net tonnage			834	273			31	246
Boats:								
Motor	137	26	27	225	44	1	6	
Other	2	2	18		19	1		
Accessory boats			72				3	
Apparatus:								
Number	139	45	759	1,388	1,938	7	11	9
Length, yards							8,080	
Square yards	500,882	68,775						
Hooks			39,012	6,579				
Yards at mouth								150

Fisheries of the San Francisco district of California, 1936—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Beam trawls	Otter trawls	Traps, crab	Harpoons, whale	Rakes and tongs, oyster	Shovels	Abalone outfits	Total, exclusive of duplication
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels			1	16				541
On boats and shore	17	3	268		25	42	2	833
Total	17	3	269	16	25	42	2	1,374
Vessels:								
Steam				2				2
Net tonnage				41				41
Motor			1					53
Net tonnage			14					1,652
Sail								2
Net tonnage								824
Total vessels			1	2				57
Total net tonnage			14	41				2,517
Boats:								
Motor	17	1	267		10		1	534
Other					9	5		51
Accessory boats								108
Apparatus:								
Number	17	1	5,324	2	25	42	1	
Yards at mouth	113	10						

CATCH: BY GEAR

Species	Purse seines		Lampara and ring nets		Haul seines		Gill nets	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Anchovies			70,000	$700	63,000	$630		
Carp					61,600	616	11,300	$175
Flounders, other			100	5	200	12	1,200	35
Hardhead					68,400	3,078		
Herring			3,000	14	515,700	2,408	312,900	1,461
Kingfish			5,600	169				
Mackerel			43,700	873				
Perch			100	4	25,500	1,019	70,100	2,733
Pilchard or sardine	758,286,600	$3,680,569	30,768,700	155,818			200	1
Salmon							948,300	54,488
Sea bass, white			400	58			4,100	742
Shad							2,273,000	45,760
Smelt			29,800	1,101	5,700	210	335,500	12,007
Splittail					22,100	221		
Squawfish							300	15
Suckers					41,900	419		
Tomcod			2,600	51				
Whitebait			1,100	66				
Other fish							100	2
Total	758,286,600	3,680,569	30,925,100	158,859	804,100	8,613	3,957,000	117,419

Species	Lines				Fyke nets		Dip nets	
	Set and hand		Troll					
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Carp					35,800	$555		
Catfish	12,000	$1,553			289,700	35,216		
Cod	5,150,100	79,800						
Eels	100	5						
Flounders:								
"California halibut"	300	46	400	$59				
"Sole"	3,400	148						
Other	2,600	275						
Grayfish	25,900	129						
Hardhead					38,300	2,407		
"Lingcod"	194,100	7,764	400	15				
Mackerel	500	11						
Rockfishes	312,200	13,942	200	7				
Sablefish	400	12						

Fisheries of the San Francisco district of California, 1936—Continued

CATCH: BY GEAR—Continued

Species	Lines				Fyke nets		Dip nets	
	Set and hand		Troll					
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
FISH—continued								
Salmon			447, 500	$33, 566				
Sculpin	6, 300	$126						
Smelt	500	25					9, 000	$315
Splittail					7, 200	$307		
Squawfish					200	9		
Suckers					6, 200	287		
Whitebait							12, 100	758
Other fish	100	1						
Total	5, 708, 500	103. 837	448. 500	33, 647	377, 400	38, 781	21, 100	1, 073
SHELLFISH, ETC.								
Octopus	11, 500	690						
Squid	300	17						
Total	11, 800	707						
Grand total	5, 720, 300	104, 544	448, 500	33, 647	377, 400	38, 781	21, 100	1, 073

Species	Bag nets		Paranzella nets		Beam trawls		Traps	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Flounders:								
"California halibut"			8, 900	$1, 241				
"Sole"			4, 913, 600	284, 725				
Other			978, 700	63, 315				
Grayfish			128, 800	644				
Hake			39, 000	390				
Kingfish			7, 200	216				
"Lingcod"			107, 000	4, 281				
Mackerel			300	6				
Rockfishes			322, 800	13, 697				
Sablefish			36, 200	1, 177				
Skates			280, 200	2, 802				
Tomcod			1, 600	32				
Other fish			99, 600	996				
Total			6, 923, 900	373, 522				
SHELLFISH, ETC.								
Crabs			12, 400	1, 428			2, 063, 200	$236, 399
Shrimp	1, 772, 400	$25, 026			468, 400	$6, 614		
Octopus			800	46				
Squid			2, 500	149				
Total	1, 772, 400	25, 026	15, 700	1, 623	468, 400	6, 614	2, 063, 200	236, 399
Grand total	1, 772, 400	25, 026	6, 939, 600	375, 145	468, 400	6, 614	2, 063, 200	236, 399

Species	Harpoons		Rakes and tongs		Shovels		Abalone outfits	
SHELLFISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Abalone							6, 700	$673
Clams:								
Hard					1, 600	$438		
Soft					29, 100	6, 056		
Oysters, market:								
Eastern			58, 900	$18, 320				
Japanese			40, 200	7, 535				
Native			4, 300	1, 078				
Total			103, 400	26, 933	30, 700	6, 494	6, 700	673
WHALE PRODUCTS								
Whale meat	1, 600, 000	$32, 000						
Whale oil	1, 189, 600	49, 952						
Total	2, 789, 600	81, 952						
Grand total	2, 789, 600	81, 952	103, 400	26, 933	30, 700	6, 494	6, 700	673

Fisheries of the Monterey district of California, 1936

OPERATING UNITS: BY GEAR

Item	Purse seines		Lampara and ring nets			Gill nets			
	Sardine	Tuna	Mackerel	Sardine	Other	Set, "California halibut"	Set, crab	Drift, sea bass	Other
	Number	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Fishermen:									
On vessels	412	46	46	198	35				
On boats and shore				191	117	26	13	19	38
Total	412	46	46	389	152	26	13	19	38
Vessels, motor	37	4	4	17	5				
Net tonnage	1,974	179	117	154	31				
Boats:									
Motor				17	17	18	9	14	23
Other									9
Accessory boats	37	4	4	34	22				
Apparatus:									
Number	37	4	4	34	22	18	9	14	44
Length, yards	12,006	2,347	1,900	10,363	4,500				
Square yards						55,395	30,960	33,152	48,809

Item	Lines		Otter trawls	Traps			Rakes and tongs	Shovels	Abalone outfits	Total, exclusive of duplication
	Set and hand	Troll		Crab	Octopus	Lobster				
	Number	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Fishermen:										
On vessels	4	6	16			2			68	652
On boats and shore	214	198	3	8	8		7	35	11	532
Total	218	204	19	8	8	2	7	35	79	1,184
Vessels, motor	3	4	3			1			14	66
Net tonnage	36	33	76			27			143	2,239
Boats:										
Motor	162	166	1	7	6		2		2	215
Other	17			1			3	11		34
Accessory boats										80
Apparatus:										
Number	859	868	4	122	92	35	7	35	16	
Yards at mouth			44							
Hooks	82,394	2,904								

CATCH: BY GEAR

Species	Purse seines		Lampara and ring nets		Gill nets	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Anchovies			14,000	$180	16,200	$207
Flounders:						
"California halibut"			700	66	31,800	3,017
"Sole"					21,500	786
Other					4,300	121
Grayfish					2,000	55
Herring			1,300	17		
Horse mackerel			29,400	1,948	600	40
Kingfish			81,100	2,954	111,600	4,065
"Lingcod"					3,200	157
Mackerel	63,700	$637	4,690,700	46,907	300	8
Perch			12,000	535	29,900	1,165
Pilchard or sardine	337,501,700	1,624,575	65,429,300	316,133	12,000	120
Pompano			300	175		
Rockfishes					2,700	93
Sculpin					2,500	26
Sea bass, white	100	10			6,800	696

Fisheries of the Monterey district of California, 1936—Continued

CATCH: BY GEAR—Continued

Species	Purse seines		Lampara and ring nets		Gill nets	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
FISH—continued						
Skates					7,600	$131
Smelt			19,300	$842	100,400	4,475
Tuna, bonito	100	$6			300	18
Whitebait			7,100	615		
Total	337,565,600	1,625,228	70,285,200	370,372	353,700	15,180
SHELLFISH, ETC.						
Crabs					5,800	520
Octopus					300	17
Squid	1,200	30	930,100	23,298	1,900	48
Total	1,200	30	930,100	23,298	8,000	585
Grand total	337,566,800	1,625,258	71,215,300	393,670	361,700	15,765

Species	Lines				Fyke nets		Paranzella nets and otter trawls	
	Set and hand		Troll					
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
FISH								
Catfish					2,900	$392		
Flounders:								
"California halibut"	900	$85					13,700	$1,300
"Sole"	17,100	677					905,600	47,098
Other	20,900	997					81,600	4,119
Grayfish	500	14					15,400	165
Hake							7,200	72
Horse mackerel	800	53						
Kingfish	14,900	542					2,300	84
"Lingcod"	150,100	7,372	300	$15			7,700	353
Mackerel	663,700	14,534						
Perch	2,200	82					1,200	54
Rockfishes	2,612,700	85,033	100	3			97,000	4,139
Sablefish	207,800	4,464					17,200	516
Salmon			144,900	12,694				
Sculpin	9,300	98						
Sea bass, white	100	10						
Skates	6,200	107					39,200	449
Smelt	15,500	677						
Tuna, and tunalike fishes:								
Albacore			42,500	3,761				
Bonito	100	6						
Other fish	100	4					13,800	141
Total	3,722,900	114,755	187,800	16,473	2,900	392	1,201,900	58,490
SHELLFISH, ETC.								
Octopus	11,600	673					400	23
Grand total	3,734,500	115,428	187,800	16,473	2,900	392	1,202,300	58,513

Species	Traps		Rakes and tongs		Shovels		Abalone outfits	
SHELLFISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Crabs	400	$36						
Shrimp	1,900	405						
Abalone							315,100	$58,161
Clams, Pismo					5,100	$1,240		
Mussels			100	$8				
Octopus	36,400	2,112						
Oysters, market, Japanese			1,200	278				
Total	38,700	2,553	1,300	286	5,100	1,240	315,100	58,161

NOTE.—The catches by paranzella nets and fyke nets were made by fishermen from the San Francisco district.

Fisheries of the San Pedro district of California, 1936

OPERATING UNITS: BY GEAR

Item	Purse seines			Lampara and ring nets			Gill nets		
	Mackerel	Sardine	Tuna	Mackerel	Sardine	Other	Drift, barracuda	Set, sea bass	Other
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	96	799	618	635	609	13	3		2
On boats and shore				36	18	25	24	33	38
Total	96	799	618	671	627	38	27	33	40
Vessels, motor	9	74	57	55	53	1	1		1
Net tonnage	248	3,408	2,810	1,478	1,343	31	5		6
Boats:									
Motor				4	2	4	11	16	15
Other						1			6
Accessory boats	9	74	57	59	55	4			
Apparatus:									
Number	9	74	57	59	55	6	12	16	23
Length, yards	3,924	27,582	33,513	27,909	25,895	2,164			
Square yards							104,960	53,104	22,350

Item	Trammel nets	Lines		Paranzella nets	Traps, sea crawfish	Harpoons, swordfish	Shovels	Abalone outfits	Total, exclusive of duplication
		Set and hand	Troll						
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	12	712	14	6	7	42		5	1,849
On boats and shore	57	521	415	12	201	107	83	12	904
Total	69	1,233	429	18	208	149	83	17	2,753
Vessels, motor	4	97	6	2	4	8		1	199
Net tonnage	43	4,006	42	26	32	193		9	8,220
Boats:									
Motor	22	315	320	4	127	49		3	475
Other		11			23		8	1	40
Accessory boats		96							183
Apparatus:									
Number	26	2,334	1,861	3	5,740	57	83	5	
Square yards	153,501								
Yards at mouth				50					
Hooks		279,797	1,903						

CATCH OFF CALIFORNIA: BY GEAR

Species	Purse seines		Lampara and ring nets		Gill nets	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Anchovies			29,700	$431	200	$4
Barracuda	434,800	$18,425	697,500	29,557	45,000	1,907
Flounders:						
"California halibut"	400	33	1,400	115	400	33
"Sole"			500	15		
Other			100	8		
Flyingfish			17,600	645	38,000	1,395
Grayfish	1,900	61	11,700	374	22,300	714
Herring					200	8
Horse mackerel	1,097,800	6,587	3,395,300	28,483	13,500	270
Kingfish			355,600	6,493	18,400	336
Mackerel	6,803,000	61,227	70,555,100	634,996	4,100	82
Mullet					6,700	535
Perch			36,100	2,333	12,000	775
Pilchard or sardine	123,193,600	511,204	129,732,800	538,339	10,600	61
Pompano			6,800	3,207	300	141
Rock bass	1,200	73	8,000	486	3,900	237
Rockfishes			1,700	62	100	4
Rudderfishes			25,300	1,323	18,500	968
Sculpin			4,500	369		
Sea bass:						
Black	1,800	93	100	5	300	15
White	102,500	7,067	273,500	18,855	96,100	6,625

Fisheries of the San Pedro district of California, 1936—Continued

CATCH OFF CALIFORNIA: BY GEAR—continued

Species	Purse seines		Lampara and ring nets		Gill nets	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
FISH—continued						
Sheepshead			500	$18	200	$7
Skates			200	3		
Smelt			225,000	8,230	71,700	2,623
Swordfish	1,800	$210	600	70		
Tuna and tunalike fishes:						
Albacore	26,400	2,455	7,000	651		
Bluefin	9,251,900	453,091	4,364,900	213,760		
Bonito	148,600	4,354	479,400	14,045	1,100	32
Skipjack or striped tuna	369,400	16,480	45,000	2,008		
Yellowfin	145,900	7,855	159,800	8,604	100	5
Whitefish			800	46		
Yellowtail	33,800	1,445	56,000	2,393	1,000	43
Other fish			500	18	2,900	103
Total	141,614,800	1,090,660	210,493,000	1,515,942	367,600	16,923
SHELLFISH, ETC.						
Squid			9,000	298	500	17
Turtles			500	24		
Other shellfish			300	5		
Total			9,800	327	500	17
Grand total	141,614,800	1,090,660	210,502,800	1,516,269	368,100	16,940

Species	Trammel nets		Lines				Paranzella nets	
			Set and hand		Troll			
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
FISH								
Barracuda			434,000	$18,392	414,600	$17,569		
Flounders:								
"California halibut"	377,100	$30,919	41,000	3,608			207,800	$17,038
"Sole"	1,300	38	5,300	155			374,200	10,971
Other			8,500	1,410				
Grayfish	53,800	1,722	144,700	4,630	800	25	2,900	93
Hake			4,100	81				
Kingfish			53,700	980				
"Lingcod"	100	4	200	8				
Mackerel			6,975,900	78,130				
Marlin			12,300	353				
Perch			3,800	246				
Rock bass	1,700	103	138,100	8,394	300	18		
Rockfishes	500	18	666,800	24,289			1,300	47
Rudderfishes			100	5				
Sablefish			172,700	6,646				
Salmon					1,000	96		
Sculpin	200	16	99,700	8,175			1,900	156
Sea bass:								
Black	1,600	83	10,100	522			100	5
White	1,300	90	10,600	731	200	14		
Sheepshead	2,600	91	31,600	1,107				
Skates	9,200	137	5,800	87			13,600	204
Smelt			2,500	91				
Tuna, and tunalike fishes:								
Albacore			197,800	18,398	680,600	63,307		
Bluefin			12,500	612	1,400	69		
Bonito	200	6	165,200	4,840	485,900	14,236		
Skipjack or striped tuna			4,710,000	210,123	9,900	442		
Yellowfin			317,900	17,115	16,600	894		
Whitefish	100	6	13,200	762				
Yellowtail	100	4	58,700	2,509	34,500	1,474		
Other fish	200	7	2,800	99				
Total	450,000	33,244	14,302,600	412,498	1,645,800	98,144	601,800	28,514
SHELLFISH, ETC.								
Sea crawfish or spiny lobster	8,700	1,444						
Octopus			300	40				
Total	8,700	1,444	300	40				
Grand total	458,700	34,688	14,302,900	412,538	1,645,800	98,144	601,800	28,514

Fisheries of the San Pedro district of California, 1936—Continued

CATCH OFF CALIFORNIA: BY GEAR—Continued

Species	Traps		Harpoons		Shovels		Abalone outfits	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Kingfish	200	$4						
Marlin			2, 400	$72				
Perch	1, 100	71						
Rock bass	53, 800	3, 270						
Rockfishes	1, 300	47						
Sheepshead	74, 300	2, 604						
Swordfish			459, 400	53, 629				
Whitefish	2, 400	138						
Other fish	600	21						
Total	133, 700	6, 155	461, 800	53, 701				
SHELLFISH								
Crabs	16, 200	484						
Sea crawfish or spiny lobster	325, 400	54, 017						
Abalone							338, 600	$33, 877
Clams:								
Hard					5, 100	$1, 248		
Pismo					47, 300	9, 482		
Octopus	300	41						
Total	341, 900	54, 542			52, 400	10, 730	338, 600	33, 877
Grand total	475, 600	60, 697	461, 800	53, 701	52, 400	10, 730	338, 600	33, 877

CATCH OFF LATIN AMERICA: BY GEAR

Species	Purse seines		Gill nets		Trammel nets	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Barracuda	222, 300	$18, 426				
Cabrilla	2, 100	81				
Flounders:						
"California halibut"					181, 500	$14, 745
"Sole"					100	8
Grayfish					5, 100	217
Groupers	1, 000	58				
Rock bass					100	7
Sea bass:						
Black	2, 200	133			1, 500	91
White	6, 800	744	6, 200	$678	200	22
Sheepshead					1, 100	37
Skates					1, 700	45
Tuna and tunalike fishes:						
Bluefin	4, 020, 000	192, 723				
Bonito	3, 560, 700	112, 637	100	3		
Skipjack or striped tuna	1, 646, 100	70, 628				
Yellowfin	3, 856, 000	205, 084				
Whitefish					600	35
Yellowtail	1, 528, 700	48, 702				
Total	14, 845, 900	649, 216	6, 300	681	191, 900	15, 207

Fisheries of the San Pedro district of California, 1936—Continued

CATCH OFF LATIN AMERICA: BY GEAR—Continued

Species	Lines, set and hand		Traps		Harpoons	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
FISH						
Barracuda	83,000	$6,879				
Cabrilla	70,700	2,715				
Flounders, "California halibut"	1,400	114				
Grayfish	3,100	132				
Groupers	19,700	1,142				
"Lingcod"	300	19				
Rock bass	9,600	597				
Rockfishes	11,400	544				
Sablefish	13,900	812				
Sea bass:						
Black	277,500	16,744				
White	5,200	569				
Sheepshead	900	30				
Spanish mackerel	16,100	952				
Swordfish					1,700	$177
Tuna and tunalike fishes:						
Bluefin	1,300	62				
Bonito	43,900	1,389				
Skipjack or striped tuna	2,653,300	113,843				
Yellowfin	15,804,700	840,585				
Whitefish	5,100	282				
Yellowtail	435,000	13,858				
Other fish	100	4				
Total	19,456,200	1,001,272			1,700	177
SHELLFISH						
Sea crawfish or spiny lobster			35,100	$6,450		
Grand total	19,456,200	1,001,272	35,100	6,450	1,700	177

Fisheries of the San Diego district of California, 1936

OPERATING UNITS: BY GEAR

Item	Ring nets		Gill nets			Trammel nets
	Mackerel	Sardine	Drift, barracuda	Set, sea bass	Other	
	Number	*Number*	*Number*	*Number*	*Number*	*Number*
Fishermen:						
On vessels	123	144	4	9		9
On boats	28	45	25	32	5	29
Total	151	189	29	41	5	38
Vessels, motor	12	14	1	2		2
Net tonnage	83	106	5	17		17
Boats:						
Motor	3	5	8	10	3	9
Other					1	
Accessory boats	15	19				
Apparatus:						
Number	15	19	9	12	5	11
Length, yards	4,770	6,056				
Square yards			54,868	64,148	4,500	105,991

Fisheries of the San Diego district of California, 1936—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Lines		Traps, sea crawfish	Harpoons, swordfish	Total, exclusive of duplication
	Set and hand	Troll			
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	758	7	7	15	793
On boats	184	109	36	30	274
Total	942	116	43	45	1,067
Vessels, motor	81	2	1	4	84
Net tonnage	4,856	14	41	37	4,877
Boats:					
Motor	71	75	27	11	119
Other	----------	----------	3	----------	4
Accessory boats	80	----------	----------	----------	85
Apparatus:					
Number	1,057	503	930	15	----------
Hooks	26,826	503	----------	----------	----------

CATCH OFF CALIFORNIA: BY GEAR

Species	Purse seines		Ring nets		Gill nets		Trammel nets	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Barracuda	----------	--------	69,200	$2,550	47,000	$1,732	--------	--------
Carp	----------	--------	----------	--------	100	5	--------	--------
Flounders, "California halibut"	----------	--------	----------	--------	--------	--------	94,800	$6,820
Grayfish	----------	--------	----------	--------	28,600	263	12,000	110
Herring	----------	--------	----------	--------	1,500	18	--------	--------
Horse mackerel	----------	--------	60,800	363	--------	--------	--------	--------
Kingfish	----------	--------	200	5	--------	--------	--------	--------
Mackerel	20,600	$165	8,446,100	67,569	9,100	173	--------	--------
Mullet	----------	--------	----------	--------	3,900	252	--------	--------
Perch	----------	--------	----------	--------	300	14	--------	--------
Pilchard or sardine	2,310,300	9,394	13,545,000	55,069	--------	--------	--------	--------
Pompano	----------	--------	100	21	--------	--------	--------	--------
Rock bass	----------	--------	100	4	1,000	42	--------	--------
Rockfishes	----------	--------	----------	--------	200	9	--------	--------
Sea bass:								
Black	----------	--------	600	30	1,100	54	--------	--------
White	8,800	747	2,500	212	51,700	4,389	500	43
Skates	----------	--------	1,800	21	200	2	6,600	75
Smelt	----------	--------	500	17	7,100	198	--------	--------
Tuna and tunalike fishes:								
Bluefin	46,500	2,261	108,200	5,260	--------	--------	--------	--------
Bonito	----------	--------	188,000	5,444	39,700	1,150	400	12
Yellowtail	----------	--------	4,200	178	1,400	59	--------	--------
Total	2,386,200	12,567	22,427,300	136,743	192,900	8,360	114,300	7,060
SHELLFISH								
Sea crawfish or spiny lobster	----------	--------	----------	--------	--------	--------	200	30
Grand total	2,386,200	12,567	22,427,300	136,743	192,900	8,360	114,500	7,090

Fisheries of the San Diego district of California, 1936—Continued

CATCH OFF CALIFORNIA: BY GEAR—Continued

Species	Lines				Traps		Harpoons	
	Set and hand		Troll					
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Barracuda	33, 500	$1, 234	72, 200	$2, 661				
Flounders:								
"California halibut"	500	35						
"Sole"	100	4						
Grayfish	4, 700	47	600	6				
Kingfish	1, 100	29						
"Lingcod"	2, 000	46						
Mackerel	550, 300	10, 588	500	10				
Marlin			400	20			1, 200	$58
Rock bass	56, 800	2, 409	1, 500	63	58, 000	$2, 457		
Rockfishes	153, 400	6, 956			100	4		
Sablefish	1, 600	24						
Sculpin	3, 400	504			300	5		
Sea bass:								
Black	4, 100	202						
White	5, 700	484	200	17				
Sheepshead	3, 200	125			3, 600	140		
Skates	400	4			100	1		
Swordfish							90, 200	7, 964
Tuna and tunalike fishes:								
Albacore	1, 000	93	1, 400	130				
Bluefin	22, 200	1, 079	1, 000	49				
Bonito	205, 900	5, 962	501, 800	14, 530				
Skipjack or striped tuna	3, 320, 900	149, 422	1, 500	68				
Yellowfin	108, 100	5, 987	18, 900	1, 047				
Whitefish	10, 300	536						
Yellowtail	43, 500	1, 838	20, 600	871				
Other fish	200	5						
Total	4, 532, 900	187, 613	620, 600	19, 472	62, 100	2, 607	91, 400	8, 022
SHELLFISH								
Sea crawfish or spiny lobster					79, 900	12, 662		
Grand total	4, 532, 900	187, 613	620, 600	19, 472	142, 000	15, 269	91, 400	8, 022

CATCH OFF LATIN AMERICA: BY GEAR

Species	Purse seines		Ring nets		Gill nets		Trammel nets	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Barracuda			38, 100	$1, 922	27, 700	$1, 397		
Flounders, "California halibut"							622, 000	$40, 604
Grayfish					2, 200	37	1, 400	23
Horse mackerel			1, 200	7				
Mackerel			1, 225, 700	11, 229	7, 700	154		
Perch			100	4				
Pilchard or sardine			700	12				
Pompano			400	51				
Rock bass			400	16	300	12		
Sea bass:								
Black			5, 000	226	3, 800	171	2, 400	108
White			4, 600	387	142, 900	12, 010	300	25
Sheepshead			1, 500	53	500	18		
Skates							2, 000	18
Smelt			1, 200	73	600	36		
Tuna and tunalike fishes:								
Bluefin	106, 300	$5, 181	524, 200	25, 547				
Bonito	1, 300	40	332, 500	10, 204	9, 100	279	1, 000	31
Skipjack or striped tuna	207, 700	9, 164						
Yellowfin	840, 300	44, 275						
Yellowtail			196, 900	5, 630	5, 500	157		
Other fish							100	3
Total	1, 155, 600	58, 660	2, 332, 500	55, 361	200, 300	14, 271	629, 200	40, 812
SHELLFISH								
Sea crawfish or spiny lobster							700	58
Grand total	1, 155, 600	58, 660	2, 332, 500	55, 361	200, 300	14, 271	629, 900	40, 870

Fisheries of the San Diego district of California, 1936—Continued

CATCH OFF LATIN AMERICA: BY GEAR—Continued

Species	Lines				Traps		Harpoons	
	Set and hand		Troll					
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Barracuda	308,500	$15,559	50,400	$2,542				
Cabrilla	124,100	3,879						
Flounders, "California halibut"	1,400	91						
Grayfish	2,500	43						
Groupers	39,800	1,374						
Kingfish	100	5						
"Lingcod"	3,600	136						
Mackerel	480,700	4,404						
Marlin	300	12						
Rock bass	81,400	3,328						
Rockfishes	98,100	4,770						
Sablefish	500	20						
Sculpin	700	50						
Sea bass:								
Black	85,400	3,853						
White	76,300	6,413	400	34				
Sheepshead	8,600	303						
Smelt	200	12						
Spanish mackerel	1,900	56						
Swordfish							23,700	$2,143
Tuna and tunalike fishes:								
Bluefin	464,400	22,633	100	5				
Bonito	962,900	29,551	87,700	2,691				
Skipjack or striped tuna	14,027,800	618,930	600	26				
Yellowfin	57,082,900	3,007,681	1,500	79				
Whitefish	14,000	718						
Yellowtail	7,585,800	216,909	86,800	2,482				
Other fish	700	18						
Total	81,452,600	3,940,748	227,500	7,859			23,700	2,143
SHELLFISH, ETC.								
Sea crawfish or spiny lobster					885,000	$73,765		
Turtles							2,200	97
Total					885,000	73,765	2,200	97
Grand total	81,452,600	3,940,748	227,500	7,859	885,000	73,765	25,900	2,240

HALIBUT FISHERY OF THE PACIFIC COAST[10]

The halibut fishery of the Pacific coast, which is prosecuted by United States (including Alaska) and Canadian vessels, ranks as one of the foremost fisheries of that section. During 1936 the total catch of halibut by vessels of both nationalities amounted to 48,054,000 pounds, valued at $3,603,000. This is an increase of 5 percent in volume and 11 percent in value as compared with the catch and its value in 1935. Of the total catch in 1936, 78 percent was taken by United States craft and 22 percent by Canadian craft. Considered according to ports of landing, 47 percent was landed at Seattle, Wash.; 35 percent at Canadian ports; and 18 percent at ports in Alaska.

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[10] These statistics are compiled from data collected by the International Fisheries Commission for Washington and British Columbia, and by Bureau agents for Alaska. The weights of the above species represent the fish after evisceration and removal of heads.

Halibut fishery of the Pacific coast, 1936

UNITED STATES OPERATING UNITS: BY FLEET CLASSIFICATION

Item	Washington fleet	Alaska fleet	Total
Regular halibut vessels:			
Number	130	104	234
Net tonnage	3, 878	1, 412	5, 290
Crew	1, 001	460	1, 461
Skates of lines	4, 094	1, 994	6, 088
Vessels in other fisheries but landing one or more fares of halibut:			
Number	18	31	49
Net tonnage	380	286	666
Crew	100	99	199
Skates of lines	444	402	846
Regular halibut boats:			
Number		26	26
Crew		65	65
Skates of lines		364	364
Boats in other fisheries but landing one or more fares of halibut:			
Number	1	52	53
Crew	2	93	95
Skates of lines	6	286	292

CATCH OF ALL SPECIES: BY UNITED STATES VESSELS AND BOATS [1]

Fleet classification	Landed in—						Total	
	Seattle, Wash.		British Columbia		Alaska			
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
WASHINGTON FLEET								
Regular vessels:								
Halibut	20, 913, 875	$1, 837, 646	1, 789, 364	$134, 968	604, 195	$38, 401	23, 307, 434	$2, 011, 015
Sablefish	2, 274, 169	95, 502	5, 018	287	48, 396	1, 149	2, 327, 583	96, 938
"Lingcod"	683, 280	22, 849					683, 280	22, 849
Rockfishes	395, 235	13, 200	1, 482	30	78	2	396, 795	13, 232
Total	24, 266, 559	1, 969, 197	1, 795. 864	135, 285	652, 669	39, 552	26, 715, 092	2, 144, 034
Other vessels and boats:								
Halibut	525, 077	42, 609	28, 848	2, 402	35, 200	1, 960	589, 125	46, 971
Sablefish	57, 167	2, 177					57, 167	2, 177
"Lingcod"	78, 104	1, 770					78, 104	1, 770
Rockfishes	12, 113	306					12, 113	306
Total	672, 461	46, 862	28, 848	2, 402	35, 200	1, 960	736, 509	51, 224
ALASKA FLEET								
Regular vessels:								
Halibut	1, 154, 327	96, 797	4, 230, 865	313, 507	5, 563, 044	328, 081	10, 948, 236	738, 385
Sablefish	7, 074	358	221, 728	6, 621	726, 462	16, 272	955, 264	23, 251
"Lingcod"	71, 120	2, 800			28, 777	577	99, 897	3, 377
Rockfishes	31, 919	1, 239			17, 986	436	49, 905	1, 675
Total	1, 264, 440	101, 194	4, 452, 593	320, 128	6, 336, 269	345, 366	12, 053, 302	766, 688
Other vessels and boats:								
Halibut			165, 769	12, 267	2, 452, 335	138, 802	2, 618, 104	151, 069
Sablefish					24, 125	579	24, 125	579
"Lingcod"					594	10	594	10
Rockfishes					1, 737	28	1, 737	28
Total			165, 769	12, 267	2, 478, 791	139, 419	2, 644, 560	151, 686
COMBINED FLEETS								
Regular vessels:								
Halibut	22, 068, 202	1, 934, 443	6, 020. 229	448, 475	6, 167, 239	366, 482	34, 255, 670	2, 749, 400
Sablefish	2, 281, 243	95, 860	226, 746	6, 908	774, 858	17, 421	3, 282, 847	120, 189
"Lingcod"	754, 400	25, 649			28, 777	577	783, 177	26, 226
Rockfishes	427, 154	14, 439	1, 482	30	18, 064	438	446, 700	14, 907
Total	25, 530, 999	2, 070, 391	6, 248, 457	455, 413	6, 988, 938	384, 918	38, 768, 394	2, 910, 722
Other vessels and boats:								
Halibut	525, 077	42, 609	194, 617	14, 669	2, 487, 535	140, 762	3, 207, 229	198, 040
Sablefish	57, 167	2, 177			24, 125	579	81, 292	2, 756

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[1] Does not include 856,069 pounds of halibut valued at $84,521 landed at Seattle, and 5,500 pounds valued at $427 landed in British Columbia after Jan. 1, 1936, which were part of the 1935 quota.

Halibut fishery of the Pacific coast, 1936—Continued

CATCH OF ALL SPECIES: BY UNITED STATES VESSELS AND BOATS—Continued

Fleet classification	Landed in—						Total	
	Seattle, Washington		British Columbia		Alaska			
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
COMBINED FLEETS—con.								
Other vessels and boats—Continued.								
"Lingcod"	78, 104	$1, 770			594	$10	78, 698	$1, 780
Rockfishes	12, 113	306			1, 737	28	13, 850	334
Total	672, 461	46, 862	194, 617	$14, 669	2, 513, 991	141, 379	3, 381, 069	202, 910
All vessels and boats:								
Halibut	22, 593, 279	1, 977, 052	6, 214, 846	463, 144	8, 654, 774	507, 244	37, 462, 899	2, 947, 440
Sablefish	2, 338, 410	98, 037	226, 746	6, 908	798, 983	18, 000	3, 364, 139	122, 945
"Lingcod"	832, 504	27, 419			29, 371	587	861, 875	28, 006
Rockfishes	439, 267	14, 745	1, 482	30	19, 801	466	460, 550	15, 241
Grand total	26, 203, 460	2, 117, 253	6, 443, 074	470, 082	9, 502, 929	526, 297	42, 149, 463	3, 113, 632

CATCH OF HALIBUT: BY UNITED STATES AND CANADIAN VESSELS AND BOATS

[Expressed in thousands of pounds and thousands of dollars; that is, 000 omitted]

Fleet classification	Landed in—						Total	
	Seattle, Washington		British Columbia		Alaska			
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
WASHINGTON FLEET								
Regular halibut vessels	20, 914	$1, 838	1, 790	$135	604	$38	23, 308	$2, 011
Other vessels and boats	525	43	29	2	35	2	589	47
Total	21, 439	1, 881	1, 819	137	639	40	23, 897	2, 058
ALASKA FLEET								
Regular halibut vessels	1, 154	97	4, 231	313	5, 563	328	10, 948	738
Other vessels and boats			166	12	2, 452	139	2, 618	151
Total	1, 154	97	4, 397	325	8, 015	467	13, 566	889
COMBINED FLEETS								
Regular halibut vessels	22, 068	1, 935	6, 021	448	6, 167	366	34, 256	2, 749
Other vessels and boats	525	43	195	14	2, 487	141	3, 207	198
Total	22, 593	1, 978	6, 216	462	8, 654	507	37, 463	2, 947
British Columbia fleet			10, 587	656	4	(1)	10, 591	656
Grand total	22, 593	1, 978	16, 803	1, 118	8, 658	507	48, 054	3, 603

(1) Less than $500.

NOTE.—In addition to the above it is estimated that about 1,212,000 pounds of halibut, sablefish, "lingcod," and rockfish livers, valued at approximately $545,000 were landed by the combined fleets at Pacific coast ports during 1936.

The tabulation does not include landings at ports south of Seattle, Wash., which are normally less than 4 percent of the annual Pacific coast catch.

VESSEL FISHERIES AT SEATTLE, WASH.

A total of 49,831,417 pounds of fishery products, valued at $3,254,514, were handled by Seattle wholesale dealers during 1936, exclusive of quantities received by transporting vessels or by rail from Alaska or Canada. This represents an increase of 3 percent in volume and 8 percent in value as compared with the volume and value of the products handled during the preceding year. Of the total quantity 27,059,529 pounds, valued at $2,201,774, were landed by fishing vessels—an increase of 8 percent in volume and 18 percent in value as compared with the previous year. Receipts by wholesale dealers from sources other than Alaska or Canada or from vessels in the halibut fleet, amounted to 22,771,888 pounds, valued at $1,052,740, which is a decrease of 2 percent in volume and 8 percent in value.

Fishery products landed by United States vessels at Seattle, Wash., 1936 [1]

BY FISHING GROUNDS

Fishing grounds	Trips	Halibut				Sablefish		"Lingcod"		Rockfishes		Total	
		No. 1		No. 2									
	Number	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
West of Cape Spencer	571	10, 833, 010	$993, 540	7, 447, 535	$638, 416	98, 910	$3, 665	5, 003	$161	45, 537	$1, 457	18, 429, 995	$1, 637, 239
South of Cape Spencer	722	2, 768, 816	242, 499	2, 399, 987	187, 118	2, 239, 500	94, 372	827, 501	27, 258	393, 730	13, 288	8, 629, 534	564, 535
Total	1, 293	13, 601, 826	1, 236, 039	9, 847, 522	825, 534	2, 338, 410	98, 037	832, 504	27, 419	439, 267	14, 745	27, 059, 529	2, 201, 774

BY MONTHS

Months	Trips	Halibut				Sablefish		"Lingcod"		Rockfishes		Total	
		No. 1		No. 2									
	Number	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
January [2]	46	404, 113	$41, 839	451, 956	$42, 682	14, 113	$540	35, 966	$1, 908	20, 286	$987	926, 434	$87, 956
February	16	-------	-------	-------	-------	-------	-------	121, 741	5, 228	33, 656	1, 385	155, 397	6, 613
March	64	695, 413	62, 035	243, 071	17, 884	6, 811	291	102, 403	4, 169	31, 617	1, 386	1, 079, 315	85, 765
April	196	2, 420, 219	179, 044	1, 239, 491	88, 516	28, 920	1, 013	150, 175	3, 642	54, 909	1, 309	3, 893, 714	273, 524
May	155	1, 758, 528	133, 634	1, 153, 207	81, 367	16, 932	646	114, 592	2, 324	52, 011	1, 076	3, 095, 270	219, 047
June	177	1, 855, 184	158, 005	1, 672, 769	129, 745	153, 906	5, 537	77, 714	1, 650	55, 931	1, 149	3, 815, 504	296, 086
July	133	1, 440, 477	134, 528	1, 374, 498	109, 837	81, 818	2, 901	30, 083	831	19, 545	568	2, 946, 421	248, 665
August	136	1, 520, 841	146, 117	1, 208, 834	103, 885	260, 102	9, 526	17, 872	567	40, 073	1, 218	3, 047, 722	261, 313
September	120	1, 283, 420	142, 358	953, 367	97, 318	487, 973	19, 106	14, 120	570	29, 696	1, 442	2, 768, 576	260, 594
October	119	1, 215, 136	133, 968	761, 941	76, 929	658, 374	29, 308	32, 757	1, 437	29, 221	1, 295	2, 697, 429	242, 937
November	111	1, 008, 495	104, 511	788, 388	77, 371	585, 630	27, 022	49, 374	1, 875	24, 113	989	2, 456, 000	211, 768
December	20	-------	-------	-------	-------	43, 831	2, 147	85, 707	3, 218	48, 209	2, 141	177, 747	7, 506
Total	1, 293	13, 601, 826	1, 236, 039	9, 847, 522	825, 534	2, 338, 410	98, 037	832, 504	27, 419	439, 267	14, 745	27, 059, 529	2, 201, 774

[1] Halibut fleet.

[2] The halibut landed during January were caught prior to the close of the halibut season on Dec. 26, 1935, and were a part of the 1935 quota.

NOTE.—The statistics in this table are compiled from reports collected by the Bureau of Fisheries and the International Fisheries Commission.

Fishery products received by Seattle wholesale dealers, 1936; by months [1]

Species	January		February		March		April		May		June	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Cod	32, 986	$852	17, 606	$495	62, 668	$1, 504	31, 999	$496	1, 200	$18	135	$2
Flounders:												
"Sole"	116, 414	3, 458	84, 912	2, 666	81, 711	2, 958	426, 876	7, 598	561, 484	8, 423	563, 407	8, 451
Other	129, 492	2, 575	57, 020	1, 477	7, 634	192	980	14			350	5
Halibut					131	13	4, 821	260	32, 532	1, 695	52, 291	2, 677
Herring	990	15	7, 750	157	131, 300	788						
"Lingcod"	13, 233	582	33, 183	1, 092	84, 775	3, 476	65, 094	1, 110	66, 361	1, 165	79, 602	796
Perch	6, 090	184	3, 619	132	8, 650	346	11, 195	336	1, 733	52	576	23
Rockfishes	13, 779	495	4, 105	169	5, 278	185	3, 190	64	280	5	6, 401	77
Sablefish											331	10
Salmon:												
Blueback, red, or sockeye											183	9
Chinook or king			12, 045	1, 470	15, 096	2, 249	476, 793	48, 776	321, 585	25, 341	966, 245	67, 444
Silver or coho							382	28	2, 009	127	158, 424	7, 604
Smelt	53, 844	2, 525	46, 631	1, 191	21, 307	507	5, 680	448	4, 591	366	10, 747	634
Crabs	73, 344	6, 073	95, 732	7, 869	54, 456	4, 307	99, 446	7, 110	79, 631	5, 972	83, 374	5, 753
Octopus	2, 462	97	1, 616	66	3, 078	134	3, 952	178	3, 655	110	2, 364	95
Squid	3, 046	158	30	1								
Total	445, 680	17, 014	364, 249	16, 785	476, 084	16, 659	1, 130, 408	66, 418	1, 075, 064	43, 274	1, 924, 430	93, 580

Species	July		August		September		October		November		December		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Cod	755	$13	2, 267	$36	7, 761	$116	9, 108	$200	41, 714	$763	57, 446	$1, 062	265, 645	$5, 557
Flounders:														
"Sole"	532, 028	8, 299	568, 804	9, 613	231, 139	4, 794	290, 556	7, 758	159, 086	4, 629	175, 995	4, 893	3, 792, 412	73, 540
Other	42	1	1, 562	23	605	8	2, 627	46	7, 153	129	28, 123	753	235, 588	5, 223
Halibut	60, 942	3, 139	13, 245	760	199	15	315	30					164, 476	8, 589
Herring							275	5	1, 160	23	13, 400	252	154, 875	1, 240
"Lingcod"	77, 949	779	119, 408	1, 602	47, 560	875	76, 908	1, 446	50, 653	1, 130	26, 597	678	741, 323	14, 731
Perch	1, 623	57	3, 608	108	4, 784	153	6, 389	224	7, 528	210	13, 185	339	68, 980	2, 164
Rockfishes	3, 407	95	8, 294	149	15, 021	230	14, 805	281	16, 222	454	16, 765	612	107, 547	2, 816
Sablefish	135, 116	1, 946	57, 433	896					141	4			193, 021	2, 856
Salmon:														
Blueback, red, or sockeye	64	5	12, 107	1, 211			102	9					12, 456	1, 234
Chinook or king	1, 917, 368	133, 065	2, 561, 915	187, 276	594, 312	38, 018	324, 225	19, 551	112, 457	5, 747	5, 758	213	7, 307, 799	529, 150
Chum or keta	228	8	232	4	20, 423	491	2, 943, 681	71, 237	561, 045	12, 175	795	16	3, 526, 404	83, 931
Humpback or pink	2, 544	51	1, 064	26									3, 608	77
Silver or coho	782, 423	38, 886	1, 384, 942	61, 630	533, 857	27, 921	1, 288, 366	63, 945	337, 959	14, 938	105, 702	5, 116	4, 594, 064	220, 195
Smelt	19, 187	768	54, 793	2, 181	95, 540	3, 631	94, 599	3, 670	53, 672	2, 641	60, 884	3, 299	521, 478	21, 861
Crabs	58, 784	5, 232	30, 767	2, 787	7, 546	772	100, 664	6, 563	133, 774	9, 230	197, 302	14, 916	[2] 1, 014, 820	76, 584
Octopus	4, 568	183	3, 189	144	7, 041	317	5, 638	226	6, 571	261	5, 956	237	50, 090	2, 048
Squid									1, 755	94	12, 471	691	17, 302	944
Total	3, 597, 028	192, 527	4, 823, 630	268, 446	1, 565, 788	77, 341	5, 158, 258	175, 191	1, 490, 890	52, 428	720, 379	33, 077	22, 771, 888	1, 052, 740

[1] This tabulation does not include fish received from Alaska or Canada, or vessels in the halibut fleet.

[2] 47,659 dozen.

LAKE FISHERIES [11]

In 1936 the yield of the fisheries of the Great Lakes, including those of the international lakes of northern Minnesota, in the United States and Canada amounted to 124,408,100 pounds, representing an increase of 2 percent as compared with the catch in the preceding year.

Considering the fishery of United States craft only, the catch amounted to 94,276,500 pounds, valued at $6,389,443, which is an increase of 4 percent in volume and 7 percent in value as compared with the catch in the previous year. These fisheries gave employment to 5,623 fishermen or 26 percent less than in 1934, the most recent previous year for which statistics on employment are available. During the survey for 1936 data, statistics of the catch in 1935 also were collected. These are presented following the data for 1936.

Lake fisheries of the United States and Canada, 1936

CATCH: BY LAKES

Species	Lake Ontario			Lake Erie		
	United States	Canada	Total	United States	Canada	Total
	Pounds	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
Blue pike	27, 900	13, 700	41, 600	19, 908, 600	6, 878, 900	26, 787, 500
Bowfin	200	(1)	200	600	(1)	600
Burbot	6, 900	(1)	6, 900	454, 500	(1)	454, 500
Carp	12, 900	174, 900	187, 800	2, 687, 000	360, 500	3, 047, 500
Catfish and bullheads	80, 800	191, 600	272, 400	573, 900	70, 900	644, 800
Cisco	----------	----------	----------	68, 000	78, 800	146, 800
Eels	44, 200	53, 800	98, 000	----------	----------	----------
Goldfish	----------	----------	----------	336, 000	(1)	336, 000
Lake herring	223, 100	1, 332, 500	1, 555, 600	----------	----------	----------
Lake trout	8, 200	226, 500	234, 700	1, 600	200	1, 800
Mooneye	----------	----------	----------	8, 800	(1)	8, 800
Pike or pickerel (jacks)	10, 200	100, 600	110, 800	1, 200	1, 600	2, 800
Rock bass	4, 100	(1)	4, 100	3, 200	(1)	3, 200
Sauger	----------	----------	----------	1, 737, 500	(1)	1, 737, 500
Sheepshead	----------	----------	----------	3, 500, 700	(1)	3, 500, 700
Sturgeon	12, 800	6, 400	19, 200	11, 600	12, 500	24, 100
Sucker "mullet"	38, 000	(1)	38, 000	946, 100	(1)	946, 100
Sunfish	14, 900	(1)	14, 900	----------	----------	----------
White bass	----------	----------	----------	663, 900	(1)	663, 900
Whitefish:						
Common	53, 100	576, 200	629, 300	1, 158, 400	1, 767, 700	2, 926, 100
Menominee	100	(1)	100	----------	----------	----------
Yellow perch	54, 600	164, 800	219, 400	2, 050, 500	1, 254, 100	3, 304, 600
Yellow pike	9, 100	26, 300	35, 400	2, 636, 900	326, 100	2, 963, 000
Mussel shells	----------	----------	----------	28, 000	(1)	28, 000
Miscellaneous	----------	287, 200	287, 200	----------	1, 201, 600	1, 201, 600
Total	601, 100	3, 154, 500	3, 755, 600	36, 777, 000	11, 952, 900	48, 729, 900

[1] Where there has been a Canadian catch of these species it is included under "Miscellaneous."

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[11] The statistics of the catch presented herewith were obtained principally from records of the various State fishery agencies. The data for the operating units (fishermen, vessels, boats, and gear) of the United States were obtained largely by Bureau agents in a special canvass: although State records in several instances were very helpful in this work. In all cases the statistics collected are for the calendar year, except for Lake of the Woods, Rainy Lake, and Lake Namakan in Minnesota, which are for two seasons. For Lake of the Woods, the seasons are from June 1 to November 1 and December 1 to April 1 and for Rainy and Namakan Lakes from May 15 to November 1 and December 1 to April 1. The catches for these two seasons, in the order named, have been combined to constitute a year. The quantity of fish taken in these lakes between January 1 and April 1 is estimated at less than 3 percent of the total catch.

Lake fisheries of the United States and Canada, 1936—Continued

CATCH: BY LAKES—Continued

Species	Lake Huron			Lake Michigan	Lake Superior		
	United States	Canada	Total	United States	United States	Canada	Total
	Pounds	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
Bowfin	100	(1)	100	----------	----------	----------	----------
Burbot	1,300	(1)	1,300	33,400	1,700	(1)	1,700
Carp	770,000	28,900	798,900	1,486,300	1,800	(1)	1,800
Catfish and bullheads	122,000	13,100	135,100	87,200	----------	----------	----------
Chubs	335,100	568,900	904,000	5,674,100	356,000	104,800	460,800
Lake herring	3,982,200	198,100	4,180,300	4,796,000	11,756,600	2,683,700	14,440,300
Lake trout	1,399,900	4,314,800	5,714,700	4,762,600	3,233,200	1,596,200	4,829,400
Pike or pickerel (jacks)	23,400	105,000	128,400	16,000	24,600	5,900	30,500
Rock bass	12,200	(1)	12,200	2,200	----------	----------	----------
Sauger	38,700	(1)	38,700	3,400	1,300	(1)	1,300
Sheepshead	8,300	(1)	8,300	11,000	----------	----------	----------
Smelt	----------	----------	----------	1,202,000	----------	----------	----------
Steelhead trout	----------	----------	----------	2,000	----------	----------	----------
Sturgeon	----------	16,200	16,200	----------	----------	500	500
Sucker "mullet"	1,813,700	(1)	1,813,700	2,685,900	190,700	(1)	190,700
White bass	100	(1)	100	----------	----------	----------	----------
Whitefish:							
Common	1,442,200	1,479,300	2,921,500	1,025,500	374,100	319,500	693,600
Menominee	44,600	(1)	44,600	66,800	55,700	(1)	55,700
Yellow perch	1,175,300	124,800	1,300,100	2,507,800	7,800	(1)	7,800
Yellow pike	1,565,200	430,300	1,995,500	116,100	4,700	84,000	88,700
Crawfish	----------	----------	----------	41,500	----------	----------	----------
Mussel shells	55,800	(1)	55,800	1,263,300	----------	----------	----------
Miscellaneous	----------	510,000	510,000	----------	----------	104,900	104,900
Total	12,790,100	7,789,400	20,579,500	25,783,100	16,008,200	4,899,500	20,907,700

Species	Namakan Lake			Rainy Lake		
	United States	Canada	Total	United States	Canada	Total
	Pounds	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
Chubs	----------	----------	----------	----------	45,700	45,700
Pike or pickerel (jacks)	5,100	4,000	9,100	43,200	171,900	215,100
Sturgeon	----------	2,400	2,400	600	800	1,400
Sucker "mullet"	----------	----------	----------	300	(1)	300
Whitefish, common	21,100	19,800	40,900	50,200	86,900	137,100
Yellow perch	100	----------	100	4,600	(1)	4,600
Yellow pike	11,700	14,600	26,300	41,800	151,400	193,200
Miscellaneous	----------	----------	----------	----------	54,600	54,600
Total	38,000	40,800	78,800	140,700	511,300	652,000

Species	Lake of the Woods			Total, all lakes		
	United States	Canada	Total	United States	Canada	Total
	Pounds	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
Blue pike	----------	----------	----------	19,936,500	6,892,600	26,829,100
Bowfin	----------	----------	----------	900	(1)	900
Burbot	131,800	(1)	131,800	629,600	(1)	629,600
Carp	13,900	1,200	15,100	4,971,900	565,500	5,537,400
Catfish and bullheads	60,700	62,600	123,300	924,600	338,200	1,262,800
Chubs	----------	----------	----------	6,365,200	719,400	7,084,600
Cisco	----------	----------	----------	68,000	78,800	146,800
Crappie	200	(1)	200	200	(1)	200
Eels	----------	----------	----------	44,200	53,800	98,000
Goldfish	----------	----------	----------	336,000	(1)	336,000
Lake herring	----------	----------	----------	20,757,900	4,214,300	24,972,200
Lake trout	----------	20,700	20,700	9,405,500	6,158,400	15,563,900
Mooneye	----------	----------	----------	8,800	(1)	8,800
Pike or pickerel (jacks)	197,300	456,600	653,900	321,000	845,600	1,166,600
Rock bass	----------	----------	----------	21,700	(1)	21,700
Sauger	391,400	25,200	416,600	2,172,300	25,200	2,197,500
Sheepshead	----------	----------	----------	3,520,000	(1)	3,520,000

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[1] Where there has been a Canadian catch of these species it is included under "Miscellaneous."

Lake fisheries of the United States and Canada, 1936—Continued

CATCH: BY LAKES—Continued

Species	Lake of the Woods			Total, all lakes		
	United States	Canada	Total	United States	Canada	Total
	Pounds	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
Smelt				1, 202, 000	(1)	1, 202, 000
Steelhead trout				2, 000	(1)	2, 000
Sturgeon	300	(1)	300	25, 300	38, 800	64, 100
Sucker "mullet"	230, 600	2, 400	233, 000	5, 905, 300	2, 400	5, 907, 700
Sunfish				14, 900	(1)	14, 900
Tullibee	103, 100	65, 000	168, 100	103, 100	65, 000	168, 100
White bass				664, 000	(1)	664, 000
Whitefish:						
Common	6, 400	267, 100	273, 500	4, 131, 000	4, 516, 500	8, 647, 500
Menominee				167, 200	(1)	167, 200
Yellow perch	156, 000	21, 600	177, 600	5, 956, 700	1, 565, 300	7, 522, 000
Yellow pike	846, 600	771, 300	1, 617, 900	5, 232, 100	1, 804, 000	7, 036, 100
Crawfish				41, 500	(1)	41, 500
Mussel shells				1, 347, 100	(1)	1, 347, 100
Miscellaneous		89, 500	89, 500		2, 247, 800	2, 247, 800
Total	2, 138, 300	1, 783, 200	3, 921, 500	94, 276, 500	30, 131, 600	124, 408, 100

[1] Where there has been a Canadian catch of these species it is included under "Miscellaneous."

Lake fisheries of the United States, 1936

OPERATING UNITS: BY LAKES

Item	Lake Ontario	Lake Erie	Lake Huron	Lake Michigan	Lake Superior	Lake of the Woods, Rainy Lake, and Namakan Lake	Total
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	15	230	155	1, 044	145		1, 589
On boats and shore:							
Regular	51	600	593	599	796	135	2, 774
Casual	70	251	88	652	199		1, 260
Total	136	1, 081	836	2, 295	1, 140	135	5, 623
Vessels:							
Steam		15	7	29	4		55
Net tonnage		427	123	658	109		1, 317
Motor	4	33	36	300	47		420
Net tonnage	45	340	499	3, 429	437		4, 750
Total vessels	4	48	43	329	51		475
Total net tonnage	45	767	622	4, 087	546		6, 067
Boats:							
Motor	35	268	232	392	288	79	1, 294
Other	49	271	93	472	436	6	1, 327
Accessory boats			4	14			18
Apparatus:							
Haul seines	6	120	46	27	8		207
Length, yards	480	54, 653	23, 390	9, 345	1, 055		88, 923
Gill nets:							
"Shoal," 2⅛ to 3⅞ inches	1, 350	13, 437	1, 819	35, 959	10, 036		62, 601
Square yards	245, 276	1, 658, 334	470, 150	5, 549, 952	2, 177, 178		10, 100, 890
"Shoal," 4 to 7 inches	327	7, 940	4, 772	33, 279	10, 399	239	56, 956
Square yards	71, 154	1, 191, 048	1, 419, 901	7, 255, 371	2, 927, 984	75, 022	12, 940, 480
"Shoal," 10 to 14 inches	15	14					29
Square yards	5, 550	1, 750					7, 300
Trammel nets		78					78
Square yards		3, 120					3, 120
Lines:							
Troll				2	31		33
Hooks				2	217		219
Trot	37	28	237	493	1, 830		2, 625
Hooks	11, 250	7, 500	84, 900	161, 970	326, 000		591, 620
Pound nets		40	259	489	141	73	1, 002
Trap nets	144	4, 271	2, 558	395	96		7, 464
Fyke nets	81	580	85	657	14	95	1, 512
Crawfish pots				1, 040			1, 040
Crowfoot bars				257			257
Picks		4	11	113			128

Lake fisheries of the United States, 1936—Continued

OPERATING UNITS: BY STATES AND LAKES

Item	New York			Pennsylvania	Ohio
	Lake Ontario	Lake Erie	Total	Lake Erie	Lake Erie
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	15	25	40	99	106
On boats and shore:					
Regular	51	10	61	42	513
Casual	70	47	117	3	134
Total	136	82	218	144	753
Vessels:					
Steam	----------	1	1	9	5
Net tonnage	----------	24	24	211	192
Motor	4	6	10	10	17
Net tonnage	45	39	84	102	199
Total vessels	4	7	11	19	22
Total net tonnage	45	63	108	313	391
Boats:					
Motor	35	10	45	14	223
Other	49	33	82	----------	208
Apparatus:					
Haul seines	6	6	12	----------	82
Length, yards	480	400	880	----------	44, 628
Gill nets:					
"Shoal," 2⅛ by 3⅞ inches	1, 350	678	2, 028	7, 016	5, 743
Square yards	245, 276	168, 702	413, 978	679, 096	810, 536
"Shoal," 4 to 7 inches	327	508	835	4, 926	2, 506
Square yards	71, 154	94, 340	165, 494	752, 160	344, 548
"Shoal," 10 to 14 inches	15	14	29	----------	----------
Square yards	5, 550	1, 750	7, 300	----------	----------
Trammel nets	----------	----------	----------	----------	78
Square yards	----------	----------	----------	----------	3, 120
Lines, trot	37	25	62	----------	----------
Hooks	11, 250	6, 500	17, 750	----------	----------
Pound nets	----------	----------	----------	40	----------
Trap nets	144	16	160	28	4, 166
Fyke nets	81	----------	81	----------	348

Item	Michigan					Indiana
	Lake Erie	Lake Huron	Lake Michigan	Lake Superior	Total	Lake Michigan
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	----------	155	342	75	572	15
On boats and shore:						
Regular	35	593	250	326	1, 204	19
Casual	67	88	328	73	556	41
Total	102	836	920	474	2, 332	75
Vessels:						
Steam	----------	7	8	4	19	2
Net tonnage	----------	123	110	109	342	23
Motor	----------	36	98	17	151	1
Net tonnage	----------	499	1, 130	187	1, 816	45
Total vessels	----------	43	106	21	170	4
Total net tonnage	----------	622	1, 240	296	2, 158	67
Boats:						
Motor	21	232	190	179	622	43
Other	30	93	200	46	369	2
Accessory boats	----------	4	----------	----------	4	----------
Apparatus:						
Haul seines	32	46	----------	8	86	----------
Length, yards	9, 625	23, 390	----------	1, 055	34, 070	----------
Gill nets:						
"Shoal," 2⅛ to 3⅞ inches	----------	1, 819	9, 294	4, 224	15, 337	740
Square yards	----------	470, 150	1, 798, 797	660, 458	2, 929, 405	177, 940
"Shoal," 4 to 7 inches	----------	4, 772	17, 694	6, 253	28, 719	575
Square yards	----------	1, 419, 901	3, 914, 221	1, 858, 134	7, 192, 256	183, 490
Lines:						
Troll	----------	----------	2	31	33	----------
Hooks	----------	----------	2	217	219	----------
Trot	3	237	165	958	1, 363	----------
Hooks	1, 000	84, 900	50, 670	272, 930	409, 500	----------
Pound nets	----------	259	201	55	515	6
Trap nets	61	2, 558	388	96	3, 103	7
Fyke nets	232	85	44	5	366	----------
Crowfoot bars	----------	----------	113	----------	113	60
Picks	4	11	113	----------	128	----------

Lake fisheries of the United States, 1936—Continued

OPERATING UNITS: BY STATES AND LAKES—Continued

Item	Illinois	Wisconsin			Minnesota		
	Lake Michigan	Lake Michigan	Lake Superior	Total	Lake Superior	Lake of the Woods, Rainy Lake, and Namakan Lake	Total
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	74	613	70	683	--------	--------	--------
On boats and shore:							
Regular	3	327	118	445	352	135	487
Casual	--------	283	26	309	100	--------	100
Total	77	1, 223	214	1, 437	452	135	587
Vessels:							
Steam	--------	20	--------	20	--------	--------	--------
Net tonnage	--------	526	--------	526	--------	--------	--------
Motor	23	176	30	206	--------	--------	--------
Net tonnage	307	1, 947	250	2, 197	--------	--------	--------
Total vessels	23	196	30	226	--------	--------	--------
Total net tonnage	307	2, 473	250,	2, 723	--------	--------	--------
Boats:							
Motor	1	158	54	212	55	79	134
Other	1	269	54	323	336	6	342
Accessory boats	--------	14	--------	14	--------	--------	--------
Apparatus:							
Haul seines	--------	27	--------	27	--------	--------	--------
Length, yards	--------	9, 345	--------	9, 345	--------	--------	--------
Gill nets:							
"Shoal," 2⅛ to 3⅞ inches	2, 400	23, 525	1, 410	24, 935	4, 402	--------	4, 402
Square yards	359, 867	3, 213, 348	319, 420	3, 532, 768	1, 197, 300	--------	1, 197, 300
"Shoal," 4 to 7 inches	1, 495	13, 515	2, 310	15, 825	1, 836	239	2, 075
Square yards	325, 180	2, 832, 480	642, 050	3, 474, 530	427, 800	75, 022	502, 822
Lines:							
Trot	--------	328	110	438	762	--------	762
Hooks	--------	111, 300	22, 590	133, 890	30, 480	--------	30, 480
Pound nets	--------	282	86	368	--------	73	73
Fyke nets	--------	613	9	622	--------	95	95
Crawfish pots	--------	1, 040	--------	1, 040	--------	--------	--------
Crowfoot bars	--------	84	--------	84	--------	--------	--------

OPERATING UNITS OF LAKE ONTARIO: BY GEAR [1]

Item	Haul seines	Gill nets			Lines, trot	Trap nets	Fyke nets	Total, exclusive of duplication
		"Shoal" 2⅛ to 3⅞ inches	"Shoal" 4 to 7 inches	"Shoal" 10 to 14 inches				
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	--------	15	3	--------	--------	--------	--------	15
On boats and shore:								
Regular	1	34	31	4	5	20	7	51
Casual	11	13	4	3	27	16	14	70
Total	12	62	38	7	32	36	21	136
Vessels, motor	--------	4	1	--------	--------	--------	--------	4
Net tonnage	--------	45	12	--------	--------	--------	--------	45
Boats:								
Motor	1	21	16	2	6	13	4	35
Other	4	4	--------	1	23	12	13	49
Apparatus:								
Number	6	1, 350	327	15	37	144	81	--------
Length, yards	480	--------	--------	--------	--------	--------	--------	--------
Square yards	--------	245, 276	71, 154	5, 550	--------	--------	--------	--------
Hooks	--------	--------	--------	--------	11, 250	--------	--------	--------

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[1] Includes Niagara River below the Falls and the St. Lawrence River.

Lake fisheries of the United States, 1936—Continued

OPERATING UNITS OF LAKE ERIE: BY GEAR [1]

Item	Haul seines	Gill nets			Trammel nets	Lines, trot
		"Shoal" 2⅛ to 3⅞ inches	"Shoal" 4 to 7 inches	"Shoal" 10 to 14 inches		
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels		217	200			
On boats and shore:						
Regular	115	61	37		10	1
Casual	148	15		1	2	25
Total	263	293	237	1	12	26
Vessels:						
Steam		15	15			
Net tonnage		427	427			
Motor		30	25			
Net tonnage		312	262			
Total vessels		45	40			
Total net tonnage		739	689			
Boats:						
Motor	52	28	12	1	5	
Other	112	5	1		4	25
Apparatus:						
Number	120	13,437	7,940	14	78	28
Length, yards	54,653					
Square yards		1,658,334	1,191,048	1,750	3,120	
Hooks						7,500

Item	Pound nets	Trap nets	Fyke nets	Picks	By hand	Total, exclusive of duplication
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels		3				230
On boats and shore:						
Regular	15	453	75			600
Casual		52	29	4	13	251
Total	15	508	104	4	13	1,081
Vessels:						
Steam						15
Net tonnage						427
Motor		1				33
Net tonnage		5				340
Total vessels		1				48
Total net tonnage		5				767
Boats:						
Motor	3	188	35			268
Other		103	41	4	13	271
Apparatus:						
Number	40	4,271	580	4		

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[1] Includes Niagara River above the Falls.

Lake fisheries of the United States, 1936—Continued

OPERATING UNITS OF LAKE HURON: BY GEAR

Item	Haul seines	Gill nets		Lines, trot	Pound nets	Trap nets	Fyke nets	Picks	By hand	Total, exclusive of duplication
		"Shoal" 2⅛ to 3⅞ inches	"Shoal" 4 to 7 inches							
	Number	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Fishermen:										
On vessels	--------	42	91	56	9	34	--------	--------	--------	155
On boats and shore:										
Regular	55	57	86	7	152	463	11	--------	--------	593
Casual	49	12	13	--------	--------	16	--------	11	4	88
Total	104	111	190	63	161	513	11	11	4	836
Vessels:										
Steam	--------	1	6	2	1	--------	--------	--------	--------	7
Net tonnage	--------	8	97	41	5	--------	--------	--------	--------	123
Motor	--------	9	20	10	2	11	--------	--------	--------	36
Net tonnage	--------	127	300	221	13	98	--------	--------	--------	499
Total vessels	--------	10	26	12	3	11	--------	--------	--------	43
Total net tonnage	--------	135	397	262	18	98	--------	--------	--------	622
Boats:										
Motor	33	29	47	4	51	155	5	--------	--------	232
Other	13	12	6	--------	11	50	1	11	4	93
Accessory boats	--------	--------	--------	--------	--------	4	--------	--------	--------	4
Apparatus:										
Number	46	1,819	4,772	237	259	2,558	85	11	--------	--------
Length, yards	23,390	--------	--------	--------	--------	--------	--------	--------	--------	--------
Square yards	--------	470,150	1,419,901	--------	--------	--------	--------	--------	--------	--------
Hooks	--------	--------	--------	84,900	--------	--------	--------	--------	--------	--------

OPERATING UNITS OF LAKE MICHIGAN: BY GEAR

Item	Haul seines	Gill nets		Lines		Pound nets
		"Shoal" 2⅛ to 3⅞ inches	"Shoal" 4 to 7 inches	Troll	Trot	
	Number	*Number*	*Number*	*Number*	*Number*	*Number*
Fishermen:						
On vessel	--------	827	714	--------	157	107
On boats and shore:						
Regular	40	345	250	--------	18	253
Casual	9	232	157	1	13	30
Total	49	1,404	1,121	1	188	390
Vessels:						
Steam	--------	23	16	--------	6	--------
Net tonnage	--------	468	362	--------	182	--------
Motor	--------	236	202	--------	42	38
Net tonnage	--------	2,686	2,446	--------	553	287
Total vessels	--------	259	218	--------	48	38
Total net tonnage	--------	3,154	2,808	--------	735	287
Boats:						
Motor	13	166	109	1	8	98
Other	40	157	71	--------	13	72
Accessory boats	--------	--------	--------	--------	--------	14
Apparatus:						
Number	27	35,959	33,279	2	493	489
Length, yards	9,345	--------	--------	--------	--------	--------
Square yards	--------	5,549,952	7,255,371	--------	--------	--------
Hooks	--------	--------	--------	2	161,970	--------

Lake fisheries of the United States, 1936—Continued

OPERATING UNITS OF LAKE MICHIGAN: BY GEAR—Continued

Item	Trap nets	Fyke nets	Craw-fish pots	Crow-foot bars	Picks	By hand	Total, exclusive of duplication
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessel	18	48	--------	--------	--------	--------	1,044
On boats and shore:							
Regular	61	108	8	--------	--------	--------	599
Casual	33	20	--------	151	113	65	652
Total	112	176	8	151	113	65	2,295
Vessels:							
Steam	--------	--------	--------	--------	--------	--------	29
Net tonnage	--------	--------	--------	--------	--------	--------	658
Motor	6	20	--------	--------	--------	--------	300
Net tonnage	46	144	--------	--------	--------	--------	3,429
Total vessels	6	20	--------	--------	--------	--------	329
Total net tonnage	46	144	--------	--------	--------	--------	4,087
Boats:							
Motor	36	46	4	105	--------	--------	392
Other	13	65	5	48	113	26	472
Accessory boats	--------	--------	--------	--------	--------	--------	14
Apparatus:							
Number	395	657	1,040	257	113	--------	--------

OPERATING UNITS OF LAKE SUPERIOR: BY GEAR

Item	Haul seines	Gill nets		Lines		Pound nets	Trap nets	Fyke nets	Total, exclusive of duplication
		"Shoal" 2⅛ to 3⅞ inches	"Shoal" 4 to 7 inches	Troll	Trot				
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
On vessels	--------	93	112	--------	52	19	3	6	145
On boats and shore:									
Regular	8	578	457	6	295	86	18	7	796
Casual	8	150	78	7	29	1	4	1	199
Total	16	821	647	13	376	106	25	14	1,140
Vessels:									
Steam	--------	1	4	--------	1	--------	--------	--------	4
Net tonnage	--------	24	109	--------	32	--------	--------	--------	109
Motor	--------	36	30	--------	17	6	1	2	47
Net tonnage	--------	307	260	--------	150	55	9	11	437
Total vessels	--------	37	34	--------	18	6	1	2	51
Total net tonnage	--------	331	369	--------	182	55	9	11	546
Boats:									
Motor	3	181	200	5	130	36	8	3	288
Other	4	382	170	1	90	24	5	4	436
Apparatus:									
Number	8	10,036	10,399	31	1,830	141	96	14	--------
Length, yards	1,055	--------	--------	--------	--------	--------	--------	--------	--------
Square yards	--------	2,177,178	2,927,984	--------	--------	--------	--------	--------	--------
Hooks	--------	--------	--------	217	326,000	--------	--------	--------	--------

Lake fisheries of the United States, 1936—Continued

OPERATING UNITS OF LAKE OF THE WOODS, RAINY LAKE, AND NAMAKAN LAKE: BY GEAR

Item	Gill nets, "shoal" 4 to 7 inches	Pound nets	Fyke nets	Total, exclusive of duplication
	Number	*Number*	*Number*	*Number*
Fishermen, on boats and shore, regular	82	45	45	135
Boats:				
Motor	60	17	21	79
Other		6		6
Apparatus:				
Number	239	73	95	
Square yards	75, 022			

CATCH: BY GEAR

Species	New York							
	Haul seines		Gill nets		Trot lines		Trap nets	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Blue pike	800	$75	647, 600	$39, 600			3, 900	$297
Bowfin							200	2
Burbot							8, 800	222
Carp			100	2			12, 700	355
Catfish and bullheads	6, 300	376	2, 000	122	100	$16	45, 600	2, 829
Cisco			1, 800	212				
Eels					400	44	39, 900	1, 330
Lake herring			217, 600	15, 238			5, 500	385
Lake trout			4, 700	625			4, 700	662
Pike or pickerel (jacks)	100	5	400	29			8, 200	573
Rock bass			200	4			3, 900	98
Sturgeon			500	174	16, 000	5, 000	1, 400	435
Sucker "mullet"	1, 200	42	8, 100	245	200	3	31, 800	974
Sunfish							14, 200	284
White bass			100	4				
Whitefish, common			41, 400	7, 111			34, 600	5, 197
Yellow perch			36, 600	2, 491			29, 900	1, 961
Yellow pike			700	85			14, 800	1, 807
Total	8, 400	498	961, 800	65, 942	16, 700	5, 063	260, 100	17, 438

Species	New York—Continued				Pennsylvania			
	Fyke nets		Total		Gill nets		Pound nets	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Blue pike			652, 300	$39, 972	2, 250, 700	$135, 044	207, 700	$12, 563
Bowfin			200	2				
Burbot			8, 800	222	1, 000	10	3, 000	30
Carp	400	$11	13, 200	372			2, 800	55
Catfish and bullheads	27, 300	2, 395	81, 300	5, 761			2, 100	105
Cisco			1, 800	212	44, 200	4, 417	6, 500	653
Eels	3, 900	131	44, 200	1, 505				
Lake herring			223, 100	15, 623				
Lake trout	300	43	9, 700	1, 330	100	8		
Pike or pickerel (jacks)	1, 500	106	10, 200	713				
Rock bass			4, 100	102				
Sheepshead					2, 300	36	7, 400	148
Sturgeon			17, 900	5, 609			800	225
Sucker "mullet"	3, 000	91	44, 300	1, 355	6, 800	80	3, 600	73
Sunfish	700	14	14, 900	298				
White bass			100	4	2, 400	116	8, 200	410
Whitefish:								
Common			76, 000	12, 308	717, 200	143, 443	84, 200	16, 845
Menominee	100	7	100	7				
Yellow perch	6, 100	365	72, 600	4, 817	86, 600	5, 733	13, 700	925
Yellow pike			15, 500	1, 892	700	69	14, 600	1, 194
Total	43, 300	3, 163	1, 290, 300	92, 104	3, 112, 000	288, 956	354, 600	33, 226

Lake fisheries of the United States, 1936—Continued

CATCH: BY GEAR—Continued

Species	Pennsylvania—Continued				Ohio			
	Trap nets		Total		Haul seines		Gill nets	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Blue pike	378, 500	$22, 712	2, 836, 900	$170, 319	--------	--------	1, 400, 500	$84, 032
Burbot	1, 500	15	5, 500	55	100	$1	18, 600	186
Carp	100	4	2, 900	59	996, 200	19, 925	76, 900	1, 538
Catfish and bullheads	700	35	2, 800	140	160, 200	8, 010	2, 800	126
Cisco	2, 600	256	53, 300	5, 326	--------	--------	11, 500	1, 270
Goldfish	--------	--------	--------	--------	319, 300	9, 579	3, 600	108
Lake trout	--------	--------	100	8	--------	--------	--------	--------
Mooneye	--------	--------	--------	--------	6, 100	182	--------	--------
Sauger	--------	--------	--------	--------	9, 300	558	672, 900	40, 373
Sheepshead	1, 400	43	11, 100	227	547, 500	10, 951	29, 000	580
Sturgeon	--------	--------	800	225	200	60	4, 100	1, 237
Sucker "mullet"	8, 500	171	18, 900	324	26, 300	525	26, 200	525
White bass	1, 500	54	12, 100	580	48, 500	2, 405	10, 800	538
Whitefish, common	2, 300	449	803, 700	160, 737	--------	--------	144, 400	28, 887
Yellow perch	30, 900	1, 909	131, 200	8, 567	2, 000	130	524, 200	40, 575
Yellow pike	4, 100	335	19, 400	1, 598	30, 400	2, 734	56, 300	5, 081
Total	432, 100	25, 983	3, 898, 700	348, 165	2, 146, 100	55, 060	2, 981, 800	205, 056

Species	Ohio—Continued					
	Trammel nets		Trap nets		Fyke nets	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Blue pike	--------	--------	15, 046, 500	$902, 790	300	$20
Burbot	--------	--------	427, 600	4, 276	--------	--------
Carp	137, 500	$2, 751	764, 700	15, 294	29, 600	592
Catfish and bullheads	1, 300	63	324, 000	17, 202	46, 800	2, 340
Cisco	--------	--------	1, 400	149	--------	--------
Goldfish	700	22	6, 200	306	300	9
Mooneye	--------	--------	1, 700	52	1, 000	30
Sauger	--------	--------	1, 000, 500	60, 031	21, 300	1, 278
Sheepshead	1, 900	38	2, 704, 900	54, 098	113, 100	2, 262
Sturgeon	--------	--------	1, 400	429	--------	--------
Sucker "mullet"	--------	--------	725, 300	14, 506	69, 300	1, 385
White bass	--------	--------	483, 600	24, 178	102, 700	5, 134
Whitefish common	--------	--------	183, 900	36, 782	2, 100	411
Yellow perch	--------	--------	1, 349, 800	87, 736	8, 800	572
Yellow pike	--------	--------	2, 247, 700	202, 297	148, 900	13, 401
Total	141, 400	2, 874	25, 269, 200	1, 420, 126	544, 200	27, 434

Species	Ohio—Continued				Michigan			
	By hand		Total		Haul seines		Gill nets	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Blue pike	--------	------	16, 447, 300	$986, 842	--------	--------	--------	--------
Bowfin	--------	------	--------	--------	600	$6	--------	--------
Burbot	--------	------	446, 300	4, 463	100	1	6, 600	$101
Carp	--------	------	2, 004, 900	40, 100	1, 140, 800	34, 225	17, 800	532
Catfish and bullheads	--------	------	535, 100	27, 741	40, 200	2, 495	100	6
Chubs	--------	------	--------	--------	--------	--------	1, 998, 400	259, 767
Cisco	--------	------	12, 900	1, 419	--------	--------	--------	--------
Goldfish	--------	------	330, 100	10, 024	1, 400	14	--------	--------
Lake herring	--------	------	--------	--------	33, 800	845	4, 653, 500	116, 337
Lake trout	--------	------	--------	--------	--------	--------	4, 031, 800	564, 443
Mooneye	--------	------	8, 800	264	--------	--------	--------	--------
Pike or pickerel (jacks)	--------	------	--------	--------	5, 200	421	3, 000	245
Rock bass	--------	------	--------	--------	5, 300	213	--------	--------
Sauger	--------	------	1, 704, 000	102, 240	1, 600	108	12, 500	875
Sheepshead	--------	------	3, 396, 400	67, 929	22, 000	659	--------	--------
Smelt	--------	------	--------	--------	--------	--------	11, 100	443
Sturgeon	--------	------	5, 700	1, 726	--------	--------	--------	--------
Sucker "mullet"	--------	------	847, 100	16, 941	132, 100	3, 530	336, 100	8, 106
White bass	--------	------	645, 600	32, 255	300	9	--------	--------
Whitefish:								
Common	--------	------	330, 400	66, 080	--------	--------	829, 700	149, 332
Menominee	--------	------	--------	--------	--------	--------	108, 100	6, 481
Yellow perch	--------	------	1, 884, 800	129, 013	24, 300	1, 945	554, 700	44, 376
Yellow pike	--------	------	2, 483, 300	223, 513	154, 800	21, 663	127, 200	17, 823
Mussel shells	16, 000	$360	16, 000	360	--------	--------	--------	--------
Total	16, 000	360	31, 098, 700	1, 710, 910	1, 562, 500	66, 134	12, 690, 600	1, 168, 867

Lake fisheries of the United States, 1936—Continued

CATCH: BY GEAR—Continued

Species	Michigan—Continued							
	Lines				Pound nets		Trap nets	
	Troll		Trot					
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Burbot			900	$14			700	$11
Carp			300	8	41, 800	$1, 253	103, 500	3, 104
Catfish and bullheads			2, 000	135	2, 000	122	76, 300	4, 991
Chubs					100	10	100	7
Lake herring					3, 387, 100	84, 676	1, 047, 400	26, 182
Lake trout	39, 000	$5, 450	1, 465, 400	205, 157	126, 600	17, 721	180, 900	25, 327
Pike or pickerel (jacks)					900	71	19, 800	1, 585
Rock bass					200	7	7, 100	282
Sauger					500	37	31, 100	2, 178
Sheepshead			1, 500	46	11, 700	351	13, 600	409
Smelt					108, 700	4, 346	200	9
Sucker "mullet"			100	2	102, 300	2, 600	3, 070, 200	80, 965
White bass							100	2
Whitefish:								
Common					456, 500	82, 162	1, 260, 500	226, 880
Menominee					3, 900	232	16, 500	994
Yellow perch			4, 900	393	25, 800	2, 061	871, 400	69, 720
Yellow pike					134, 100	18, 782	1, 244, 700	174, 257
Total	39, 000	5, 450	1, 475, 100	205, 755	4, 402, 200	214, 431	7, 944, 100	616, 903

Species	Michigan—Continued					
	Fyke nets		Crowfoot bars		Picks	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bowfin	100	$1				
Burbot	1, 900	27				
Carp	191, 300	5, 741				
Catfish and bullheads	38, 800	1, 496				
Goldfish	4, 500	45				
Lake herring	8, 300	207				
Lake trout	2, 400	333				
Pike or pickerel (jacks)	8, 500	684				
Rock bass	5, 000	200				
Sauger	31, 200	2, 179				
Sheepshead	63, 700	1, 910				
Smelt	100	5				
Sucker "mullet"	263, 300	7, 018				
White bass	5, 800	202				
Whitefish:						
Common	3, 200	581				
Menominee	400	25				
Yellow perch	78, 900	5, 907				
Yellow pike	151, 000	21, 150				
Mussel shells			353, 300	$12, 364	310, 600	$10, 046
Pearls and slugs				286		267
Total	858, 400	47, 711	353, 300	12, 650	310, 600	10, 313

Lake fisheries of the United States, 1936—Continued

CATCH: BY GEAR—Continued

Species	Michigan—Continued				Indiana			
	By hand		Total		Gill nets		Pound nets	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bowfin			700	$7				
Burbot			10, 200	154	7, 600	$76		
Carp			1, 495, 500	44, 863			4, 800	$144
Catfish and bullheads			159, 400	9, 245				
Chubs			1, 998, 600	259, 784	271, 700	27, 170		
Goldfish			5, 900	59				
Lake herring			9, 130, 100	228, 247	36, 200	1, 448	10, 000	400
Lake trout			5, 846, 100	818, 431	130, 000	13, 000		
Pike or pickerel (jacks)			37, 400	3, 006				
Rock bass			17, 600	702				
Sauger			76, 900	5, 377				
Sheepshead			112, 500	3, 375				
Smelt			120, 100	4, 803				
Steelhead trout					2, 000	300		
Sucker "mullet"			3, 904, 100	102, 221	500	5	1, 000	10
White bass			6, 200	213				
Whitefish:								
Common			2, 549, 900	458, 955	1, 000	180	500	90
Menominee			128, 900	7, 732				
Yellow perch			1, 560, 000	124, 402	41, 400	2, 486	4, 800	288
Yellow pike			1, 811, 800	253, 675				
Mussel shells	37, 700	$1, 259	701, 600	23, 669				
Pearls and slugs		22		575				
Total	37, 700	1, 281	29, 673, 500	2, 349, 495	490, 400	44, 665	21, 100	932

Species	Indiana—Continued							
	Trap nets		Crowfoot bars		By hand		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Burbot							7, 600	$76
Carp							4, 800	144
Chubs							271, 700	27, 170
Lake herring	10, 000	$400					56, 200	2, 248
Lake trout							130, 000	13, 000
Steelhead trout							2, 000	300
Sucker "mullet"	5, 000	50					6, 500	65
Whitefish, common	5, 000	900					6, 500	1, 170
Yellow perch	10, 000	600					56, 200	3, 374
Yellow pike	2, 000	300					2, 000	300
Mussel shells			95, 000	$2, 125	45, 000	$1, 125	140, 000	3, 250
Total	32, 000	2, 250	95, 000	2, 125	45, 000	1, 125	683, 500	51, 097

Species	Illinois		Wisconsin					
	Gill nets		Haul seines		Gill nets		Trot lines	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Burbot					9, 700	$96	4, 200	$41
Carp			1, 232, 700	$36, 980	91, 900	2, 759		
Catfish and bullheads			19, 300	1, 930	1, 200	93		
Chubs	479, 600	$57, 522			3, 550, 300	426, 029		
Lake herring	68, 400	1, 710	100	4	5, 074, 900	128, 872		
Lake trout	273, 500	41, 025			1, 949, 900	331, 397	416, 700	74, 409
Pike or pickerel (jacks)					6, 000	713	200	23
Smelt					565, 200	16, 924		
Sucker "mullet"			36, 300	1, 181	470, 900	15, 307		
Whitefish:								
Common					104, 100	22, 655		
Menominee					32, 000	1, 923		
Yellow perch	547, 000	32, 820	1, 000	70	556, 600	38, 963	3, 000	215
Total	1, 368, 500	133, 077	1, 289, 400	40, 165	12, 412, 700	985, 731	424, 100	74, 688

Lake fisheries of the United States, 1936—Continued

CATCH: BY GEAR—Continued

Species	Wisconsin—Continued							
	Pound nets		Fyke nets		Crawfish pots		Crowfoot bars	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Burbot	3, 100	$30	2, 400	$23				
Carp	6, 900	205	105, 200	3, 150				
Catfish and bullheads	100	4	64, 700	3, 327				
Chubs	40, 100	4, 817						
Lake herring	936, 200	23, 403	25, 600	638				
Lake trout	385, 200	68, 508	1, 100	200				
Pike or pickerel (jacks)	15, 700	2, 315	5, 700	671				
Smelt	402, 300	12, 068	114, 400	3, 432				
Sucker "mullet"	120, 400	3, 912	222, 400	7, 225				
Whitefish:								
Common	174, 900	36, 252	500	98				
Menominee	2, 600	156						
Yellow perch	173, 400	12, 138	810, 200	56, 706				
Crawfish					41, 500	$4, 150		
Mussel shells							465, 500	$7, 725
Total	2, 260, 900	163, 808	1, 352, 200	75, 470	41, 500	4, 150	465, 500	7, 725

Species	Wisconsin—Continued				Minnesota			
	By hand		Total		Gill nets		Trot lines	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Burbot			19, 400	$190	10, 600	$260		
Carp			1, 436, 700	43, 094	1, 400	19		
Catfish and bullheads			85, 300	5, 354	9, 900	519		
Chubs			3, 590, 400	430, 846	24, 900	2, 842		
Lake herring			6, 036, 800	152, 917	5, 243, 300	171, 891		
Lake trout			2, 752, 900	474, 514	286, 900	34, 484	106, 300	$11, 360
Pike or pickerel (jacks)			27, 600	3, 722	147, 400	5, 123		
Sauger					305, 700	13, 789		
Smelt			1, 081, 900	32, 424				
Sturgeon					500	155		
Sucker "mullet"			850, 000	27, 625	130, 900	1, 889		
Tullibees					86, 700	1, 557		
Whitefish:								
Common			279, 500	59, 005	56, 500	6, 452		
Menominee			34, 600	2, 079	3, 600	204		
Yellow perch			1, 544, 200	108, 092	130, 900	7, 685		
Yellow pike					572, 600	39, 111		
Crawfish			41, 500	4, 150				
Mussel shells	24, 000	$408	489, 500	8, 133				
Total	24, 000	408	18, 270, 300	1, 352, 145	7, 011, 800	285, 980	106, 300	11, 360

Species	Minnesota—Continued					
	Pound nets		Fyke nets		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Burbot	52, 700	$883	68, 500	$640	131, 800	$1, 783
Carp	9, 500	105	3, 000	31	13, 900	155
Catfish and bullheads	700	44	50, 100	2, 913	60, 700	3, 476
Chubs					24, 900	2, 842
Crappie	100	5	100	6	200	11
Lake herring					5, 243, 300	171, 891
Lake trout					393, 200	45, 844
Pike or pickerel (jacks)	66, 300	2, 505	32, 100	1, 018	245, 800	8, 646
Sauger	64, 800	3, 587	20, 900	1, 120	391, 400	18, 496
Sturgeon	400	118			900	273
Sucker "mullet"	51, 200	618	52, 300	605	234, 400	3, 112
Tullibees	16, 400	363			103, 100	1, 920
Whitefish:						
Common	28, 100	3, 347	400	42	85, 000	9, 841
Menominee					3, 600	204
Yellow perch	11, 500	704	18, 300	1, 185	160, 700	9, 574
Yellow pike	262, 600	28, 682	64, 900	6, 589	900, 100	74, 382
Total	564, 300	40, 961	310, 600	14, 149	7, 993, 000	352, 450

Lake fisheries of the United States, 1936—Continued

CATCH: BY LAKES

Species	Lake Ontario		Lake Erie			
	New York		New York		Pennsylvania	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Blue pike	27,900	$2,507	624,400	$37,465	2,836,900	$170,319
Bowfin	200	2				
Burbot	6,900	173	1,900	49	5,500	55
Carp	12,900	365	300	7	2,900	59
Catfish and bullheads	80,800	5,732	500	29	2,800	140
Cisco			1,800	212	53,300	5,326
Eels	44,200	1,505				
Lake herring	223,100	15,623				
Lake trout	8,200	1,155	1,500	175	100	8
Pike or pickerel (jacks)	10,200	713				
Rock bass	4,100	102				
Sheepshead					11,100	227
Sturgeon	12,800	3,932	5,100	1,677	800	225
Sucker "mullet"	38,000	1,139	6,300	216	18,900	324
Sunfish	14,900	298				
White bass			100	4	12,100	580
Whitefish:						
Common	53,100	7,962	22,900	4,346	803,700	160,737
Menominee	100	7				
Yellow perch	54,600	3,376	18,000	1,441	131,200	8,567
Yellow pike	9,100	1,187	6,400	705	19,400	1,598
Total	601,100	45,778	689,200	46,326	3,898,700	348,165

Species	Lake Erie—Continued					
	Ohio		Michigan		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Blue pike	16,447,300	$986,842			19,908,600	$1,194,626
Bowfin			600	$6	600	6
Burbot	446,300	4,463	800	11	454,500	4,578
Carp	2,004,900	40,100	678,900	20,366	2,687,000	60,532
Catfish and bullheads	535,100	27,741	35,500	1,543	573,900	29,453
Cisco	12,900	1,419			68,000	6,957
Goldfish	330,100	10,024	5,900	59	336,000	10,083
Lake trout					1,600	183
Mooneye	8,800	264			8,800	264
Pike or pickerel (jacks)			1,200	99	1,200	99
Rock bass			3,200	130	3,200	130
Sauger	1,704,000	102,240	33,500	2,339	1,737,500	104,579
Sheepshead	3,396,400	67,929	93,200	2,795	3,500,700	70,951
Sturgeon	5,700	1,726			11,600	3,628
Sucker "mullet"	847,100	16,941	73,800	1,992	946,100	19,473
White bass	645,600	32,255	6,100	211	663,900	33,050
Whitefish, common	330,400	66,080	1,400	247	1,158,400	231,410
Yellow perch	1,884,800	129,013	16,500	923	2,050,500	139,944
Yellow pike	2,483,300	223,513	127,800	17,883	2,636,900	243,699
Mussel shells [1]	16,000	360	12,000	368	28,000	728
Pearls and slugs [1]				19		19
Total	31,098,700	1,710,910	1,090,400	48,991	36,777,000	2,154,392

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[1] From tributary streams.

Lake fisheries of the United States, 1936—Continued

CATCH: By lakes—Continued

Species	Lake Huron		Lake Michigan			
	Michigan		Michigan		Indiana	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bowfin	100	$1				
Burbot	1, 300	21	7, 300	$109	7, 600	$76
Carp	770, 000	23, 101	46, 600	1, 396	4, 800	144
Catfish and bullheads	122, 000	7, 598	1, 900	104		
Chubs	335, 100	43, 551	1, 500, 700	195, 079	271, 700	27, 170
Lake herring	3, 982, 200	99, 554	1, 490, 700	37, 265	56, 200	2, 248
Lake trout	1, 399, 900	195, 987	2, 126, 700	297, 734	130, 000	13, 000
Pike or pickerel (jacks)	23, 400	1, 884	11, 800	948		
Rock bass	12, 200	486	2, 200	86		
Sauger	38, 700	2, 705	3, 400	241		
Sheepshead	8, 300	250	11, 000	330		
Smelt			120, 100	4, 803		
Steelhead trout					2, 000	300
Sucker "mullet"	1, 813, 700	47, 466	1, 899, 300	49, 990	6, 500	65
White bass	100	2				
Whitefish:						
Common	1, 442, 200	259, 589	876, 400	157, 753	6, 500	1, 170
Menominee	44, 600	2, 680	38, 100	2, 283		
Yellow perch	1, 175, 300	94, 022	361, 400	28, 910	56, 200	3, 374
Yellow pike	1, 565, 200	219, 132	114, 100	15, 990	2, 000	300
Mussel shells [1]	55, 800	1, 695	633, 800	21, 606	140, 000	3, 250
Pearls and slugs [1]		45		511		
Total	12, 790, 100	999, 769	9, 245, 500	815, 138	683, 500	51, 097

Species	Lake Michigan—Continued					
	Illinois		Wisconsin		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Burbot			18, 500	$181	33, 400	$366
Carp			1, 434, 900	43, 039	1, 486, 300	44, 579
Catfish and bullheads			85, 300	5, 354	87, 200	5, 458
Chubs	479, 600	$57, 522	3, 422, 100	410, 652	5, 674, 100	690, 423
Lake herring	68, 400	1, 710	3, 180, 700	79, 516	4, 796, 000	120, 739
Lake trout	273, 500	41, 025	2, 232, 400	383, 596	4, 762, 600	735, 355
Pike or pickerel (jacks)			4, 200	487	16, 000	1, 435
Rock bass					2, 200	86
Sauger					3, 400	241
Sheepshead					11, 000	330
Smelt			1, 081, 900	32, 424	1, 202, 000	37, 227
Steelhead trout					2, 000	300
Sucker "mullet"			780, 100	25, 350	2, 685, 900	75, 405
Whitefish:						
Common			142, 600	28, 884	1, 025, 500	187, 807
Menominee			28, 700	1, 724	66, 800	4, 007
Yellow perch	547, 000	32, 820	1, 543, 200	108, 019	2, 507, 800	173, 123
Yellow pike					116, 100	16, 290
Crawfish			41, 500	4, 150	41, 500	4, 150
Mussel shells [1]			489, 500	8, 133	1, 263, 300	32, 989
Pearls and slugs [1]						511
Total	1, 368, 500	133, 077	14, 485, 600	1, 131, 509	25, 783, 100	2, 130, 821

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[1] From tributary streams.

Lake fisheries of the United States, 1936—Continued

CATCH: BY LAKES—Continued

Species	Lake Superior					
	Michigan		Wisconsin		Minnesota	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Burbot	800	$13	900	$9		
Carp			1,800	55		
Chubs	162,800	21,154	168,300	20,194	24,900	$2,842
Lake herring	3,657,200	91,428	2,856,100	73,401	5,243,300	171,891
Lake trout	2,319,500	324,710	520,500	90,918	393,200	45,844
Pike or pickerel (jacks)	1,000	75	23,400	3,235	200	18
Sauger	1,300	92				
Sucker "mullet"	117,300	2,773	69,900	2,275	3,500	105
Whitefish:						
Common	229,900	41,366	136,900	30,121	7,300	1,109
Menominee	46,200	2,769	5,900	355	3,600	204
Yellow perch	6,800	547	1,000	73		
Yellow pike	4,700	670				
Total	6,547,500	485,597	3,784,700	220,636	5,676,000	222,013

Species	Lake Superior—Con.		Lake of the Woods, Rainy Lake, and Namakan Lake		Total, all lakes	
	Total		Minnesota			
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Blue pike					19,936,500	$1,197,133
Bowfin					900	9
Burbot	1,700	$22	131,800	$1,783	629,600	6,943
Carp	1,800	55	13,900	155	4,971,900	128,787
Catfish and bullheads			60,700	3,476	924,600	51,717
Chubs	356,000	44,190			6,365,200	778,164
Cisco					68,000	6,957
Crappie			200	11	200	11
Eels					44,200	1,505
Goldfish					336,000	10,083
Lake herring	11,756,600	336,720			20,757,900	572,636
Lake trout	3,233,200	461,472			9,405,500	1,394,152
Mooneye					8,800	264
Pike or pickerel (jacks)	24,600	3,328	245,600	8,628	321,000	16,087
Rock bass					21,700	804
Sauger	1,300	92	391,400	18,496	2,172,300	126,113
Sheepshead					3,520,000	71,531
Smelt					1,202,000	37,227
Steelhead trout					2,000	300
Sturgeon			900	273	25,300	7,833
Sucker "mullet"	190,700	5,153	230,900	3,007	5,905,300	151,643
Sunfish					14,900	298
Tullibees			103,100	1,920	103,100	1,920
White bass					664,000	83,052
Whitefish:						
Common	374,100	72,596	77,700	8,732	4,131,000	768,096
Menominee	55,700	3,328			167,200	10,022
Yellow perch	7,800	620	160,700	9,574	5,956,700	420,659
Yellow pike	4,700	670	900,100	74,382	5,232,100	555,360
Crawfish					41,500	4,150
Mussel shells [1]					1,347,100	35,412
Pearls and slugs [1]						575
Total	16,008,200	928,246	2,317,000	130,437	94,276,500	6,389,443

[1] From tributary streams.

Industries related to the fisheries of the Lake States, 1936

OPERATING UNITS, SALARIES, AND WAGES

Item	New York	Pennsylvania	Ohio	Michigan	Indiana and Illinois	Wisconsin	Minnesota	Total
Transporting:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Persons engaged	--------	--------	14	--------	--------	--------	--------	14
Vessels, motor	--------	--------	8	--------	--------	--------	--------	8
Net tonnage	--------	--------	115	--------	--------	--------	--------	115
Wholesale and manufacturing:								
Establishments	15	7	42	56	44	37	13	214
Persons engaged:								
Proprietors	13	8	35	43	20	29	6	154
Salaried employees	29	6	66	63	199	56	29	448
Wage earners:								
Average for season	128	105	375	380	524	529	182	2, 223
Average for year	86	46	212	158	430	172	74	1, 178
Paid to salaried employees	$42, 307	$12, 808	$197, 567	$103, 927	$509, 837	$78, 647	$49, 399	$994, 492
Paid to wage earners	$99, 033	$58, 828	$273, 524	$181, 436	$555, 927	$201, 555	$74, 312	$1, 444, 615
Total salaries and wages	$141, 340	$71, 636	$471, 091	$285, 363	$1, 065, 764	$280, 202	$123, 711	$2, 439, 107
Fishermen manufacturing	2	--------	--------	19	--------	59	400	480

PRODUCTS MANUFACTURED

Item	New York		Pennsylvania		Ohio		Michigan	
By manufacturing establishments:	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
Carp, smoked pounds	--------	--------	--------	--------	2, 100	$475	(1)	(1)
Chubs, smoked do	(1)	(1)	--------	--------	117, 000	22, 150	497, 500	$140, 550
Eels, smoked do	(1)	(1)	--------	--------	--------	--------	--------	--------
Lake herring:								
Fresh fillets do	--------	--------	--------	--------	(1)	(1)	(1)	(1)
Salted do	--------	--------	--------	--------	--------	--------	1, 540, 900	57, 715
Smoked do	(1)	(1)	--------	--------	--------	--------	117, 943	15, 720
Lake trout, smoked do	--------	--------	--------	--------	(1)	(1)	104, 250	27, 120
Pike, pickerel and sauger:								
Fresh fillets do	388, 170	$74, 621	586, 013	$115, 590	1, 899, 069	401, 844	--------	--------
Frozen fillets do	(1)	(1)	(1)	(1)	228, 062	50, 935	--------	--------
Sablefish, smoked do	--------	--------	--------	--------	(1)	(1)	(1)	(1)
Salmon:								
Kippered do	--------	--------	--------	--------	--------	--------	(1)	(1)
Smoked do	(1)	(1)	--------	--------	20, 000	6, 000	72, 600	23, 880
Sheepshead, fresh fillets pounds	--------	--------	--------	--------	61, 652	3, 237	--------	--------
Sturgeon, smoked do	(1)	(1)	--------	--------	(1)	(1)	--------	--------
Tullibees, smoked do	--------	--------	--------	--------	(1)	(1)	(1)	(1)
White bass, fresh fillets pounds	--------	--------	(1)	(1)	15, 386	2, 064	--------	--------
Whitefish:								
Fresh fillets do	--------	--------	(1)	(1)	(1)	(1)	--------	--------
Smoked do	(1)	(1)	--------	--------	(1)	(1)	56, 010	15, 611
Yellow perch:								
Fresh fillets do	5, 300	1, 060	6, 625	1, 506	116, 335	26, 913	(1)	(1)
Frozen fillets do	--------	--------	(1)	(1)	8, 830	2, 366	--------	--------
Unclassified products:								
Fillets, fresh and frozen pounds	[3] 72, 800	[3] 15, 210	[4] 55, 051	[4] 11, 094	(5)	(5)	(5)	(5)
Smoked do	[7] 188, 300	[7] 43, 946	--------	--------	(5)	(5)	(5)	(5)
Miscellaneous do	--------	--------	--------	--------	[11] 96, 600	[11] 25, 270	[12] 315, 705	[12] 72, 515
Total do	654, 570	134, 837	647, 689	128, 190	2, 565, 034	541, 254	2, 704, 908	353, 111
By fishermen:								
Chubs, smoked do	--------	--------	--------	--------	--------	--------	7, 500	1, 850
Lake herring:								
Salted do	--------	--------	--------	--------	--------	--------	200, 000	8, 000
Smoked do	--------	--------	--------	--------	--------	--------	1, 000	150
Lake trout:								
Salted do	--------	--------	--------	--------	--------	--------	25, 000	2, 250
Smoked do	--------	--------	--------	--------	--------	--------	8, 750	2, 625
Pike, smoked do	--------	--------	--------	--------	--------	--------	200	30
Suckers, smoked do	--------	--------	--------	--------	--------	--------	500	75
Whitefish, smoked do	8, 000	2, 800	--------	--------	--------	--------	2, 750	825
Yellow perch, smoked pounds	--------	--------	--------	--------	--------	--------	200	30
Total do	8, 000	2, 800	--------	--------	--------	--------	245, 900	15. 835
Grand total do	662, 570	137, 637	647, 689	128, 190	2, 565, 034	541, 254	2, 950, 808	368, 946

See footnotes at end of table.

Industries related to the fisheries of the Lake States, 1936—Continued

PRODUCTS MANUFACTURED—Continued

Item	Illinois [2]		Wisconsin		Minnesota	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
By manufacturing establishments:						
Carp, smoked............pounds..	(1)	(1)	558,571	$121,974	----------	----------
Chubs, smoked............do....	[2] 1,213,218	[2] $318,572	----------	----------	----------	----------
Eels, smoked............do....	17,703	4,423	----------	----------	----------	----------
Lake herring:						
Fresh fillets............do....	(1)	(1)	165,700	14,337	----------	----------
Salted............do....	----------	----------	1,983,590	74,860	----------	----------
Smoked............do....	(1)	(1)	621,250	45,995	(1)	(1)
Lake trout:						
Fresh fillets............do....	10,586	2,618	(1)	(1)	----------	----------
Smoked............do....	[2] 71,025	[2] 20,384	261,389	60,990	(1)	(1)
Pike, pickerel and sauger, fresh fillets............pounds..	1,544,417	329,781	110,900	25,370	----------	----------
Sablefish, smoked............do....	12,940	3,770	----------	----------	----------	----------
Salmon:						
Kippered............do....	40,200	14,060	----------	----------	(1)	(1)
Smoked............do....	480,823	171,024	124,000	37,200	(1)	(1)
Sturgeon, smoked............do....	7,832	6,562	----------	----------	----------	----------
Tullibees, smoked............do....	48,070	8,517	----------	----------	(1)	(1)
White bass, fresh fillets............do....	(1)	(1)	----------	----------	----------	----------
Whitefish:						
Fresh fillets............do....	27,687	5,905	----------	----------	----------	----------
Smoked............do....	(1)	(1)	15,750	3,450	(1)	(1)
Yellow perch, fresh fillets............do....	80,826	19,930	148,200	35,084	----------	----------
Unclassified products:						
Fillets, fresh and frozen............do....	[6] 21,201	[6] 3,309	(5)	(5)	----------	----------
Smoked............do....	[8] 41,762	[8] 7,538	[9] 136,500	[9] 15,270	[10] 528,400	[10] $103,936
Miscellaneous............do....	----------	----------	----------	[13] 34,962	----------	[14] 12,950
Total............do....	3,618,290	916,393	----------	469,492	----------	116,886
By fishermen:						
Chubs, smoked............do....	----------	----------	30,000	6,900	----------	----------
Lake herring, salted............do....	----------	----------	187,345	5,403	500,000	20,000
Lake trout, smoked............do....	----------	----------	2,500	500	----------	----------
Total............do....	----------	----------	219,845	12,803	500,000	20,000
Grand total............do....	3,618,290	916,393	----------	482,295	----------	136,886

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[1] This item has been included under "Unclassified products."

[2] A small amount of smoked chubs, lake trout, and whitefish produced in Indiana is included with the production for Illinois.

[3] Includes fresh fillets of haddock, halibut, and lake trout; and frozen fillets of pike.

[4] Includes fresh fillets of white bass and whitefish; and frozen fillets of pike and yellow perch.

[5] The production of this item has been included under "Miscellaneous."

[6] Includes fresh fillets of catfish and bullheads, lake herring, mackerel, salmon, suckers, tullibees, and white bass.

[7] Includes smoked chubs, eels, goldeye, lake herring, salmon, sturgeon, tullibees, and whitefish.

[8] Includes smoked buffalofish, carp, goldeye, lake herring, shad, and whitefish.

[9] Includes smoked carp, sablefish, salmon, and tullibees.

[10] Includes smoked cisco, lake herring, sea herring, lake trout, salmon, tullibees, and whitefish, and kippered salmon.

[11] Includes fresh fillets of lake herring and whitefish; and smoked lake trout, sablefish, sturgeon, tullibees, and whitefish.

[12] Includes fresh fillets of lake herring and yellow perch; frozen fillets of lake herring; smoked butterfish, carp, mackerel, sablefish, and tullibees; and kippered salmon.

[13] Includes fresh fillets of lake trout, salted chubs, canned whitefish caviar, burbot liver oil, and fresh-water mussel-shell poultry feed and lime.

[14] Includes salted lake herring, burbot-liver oil, and burbot and tullibee meal.

NOTE.—The total value of the manufactured products for the Lake States was as follows: By manufacturing establishments, $2,660,163; and by fishermen, $51,438. Some of the above products may have been manufactured from products imported from another State or a foreign country; therefore, they cannot be correlated directly with the catch within the State. All of the persons engaged in the preparation of fishermen's manufactured products have also been included as fishermen and 2 of the persons shown on transporting craft have also been included as fishermen. This should be considered when computing the total number of persons in the fishery industries exclusive of duplication.

Lake fisheries of the United States and Canada, 1935

CATCH: BY LAKES

Species	Lake Ontario			Lake Erie		
	United States	Canada	Total	United States	Canada	Total
	Pounds	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
Blue pike	135, 700	38, 400	174, 100	9, 686, 100	5, 064, 300	14, 750, 400
Bowfin	100	(1)	100	----------	----------	----------
Burbot	4, 800	(1)	4, 800	303, 900	(1)	303, 900
Carp	24, 000	200, 900	224, 900	1, 949, 800	619, 000	2, 568, 800
Catfish and bullheads	123, 700	185, 700	309, 400	552, 400	64, 100	616, 500
Cisco	----------	----------	----------	71, 500	96, 200	167, 700
Eels	46, 200	60, 900	107, 100	----------	----------	----------
Gizzard shad	----------	----------	----------	5, 300	(1)	5, 300
Goldfish	----------	----------	----------	158, 300	(1)	158, 300
Lake herring	166, 500	835, 700	1, 002, 200	----------	----------	----------
Lake trout	6, 800	244, 900	251, 700	100	300	400
Mooneye	----------	----------	----------	9, 600	(1)	9, 600
Pike or pickerel (jacks)	12, 600	111, 800	124, 400	1, 500	8, 200	9, 700
Rock bass	8, 900	(1)	8, 900	3, 200	(1)	3, 200
Sauger	----------	----------	----------	1, 537, 400	(1)	1, 537, 400
Sheepshead	----------	----------	----------	2, 351, 100	(1)	2, 351, 100
Sturgeon	9, 700	4, 800	14, 500	18, 200	22, 400	40, 600
Sucker "mullet"	50, 600	(1)	50, 600	1, 085, 900	(1)	1, 085, 900
Sunfish	41, 400	(1)	41, 400	----------	----------	----------
White bass	----------	----------	----------	739, 300	(1)	739, 300
Whitefish, common	40, 500	657, 400	697, 900	994, 900	1, 190, 100	2, 185, 000
Yellow perch	80, 200	143, 100	223, 300	9, 044, 900	5, 633, 500	14, 678, 400
Yellow pike	18, 300	28, 500	46, 800	1, 783, 700	319, 300	2, 103, 000
Mussel shells	----------	----------	----------	59, 400	(1)	59, 400
Miscellaneous	----------	272, 600	272, 600	----------	1, 411, 200	1, 411, 200
Total	770, 000	2, 784, 700	3, 554, 700	30, 356, 500	14, 428, 600	44, 785, 100

Species	Lake Huron			Lake Michigan	Lake Superior		
	United States	Canada	Total	United States	United States	Canada	Total
	Pounds	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
Blue pike	----------	1, 300	1, 300	----------	----------	----------	----------
Bowfin	1, 000	(1)	1, 000	----------	----------	----------	----------
Burbot	5, 200	(1)	5, 200	39, 900	1, 400	(1)	1, 400
Carp	1, 079, 300	22, 900	1, 102, 200	1, 054, 000	100	100	200
Catfish and bullheads	71, 100	5, 600	76, 700	41, 900	200	(1)	200
Chubs	386, 900	711, 300	1, 098, 200	5, 794, 500	472, 800	209, 000	681, 800
Lake herring	3, 886, 200	293, 100	4, 179, 300	5, 425, 300	13, 115, 400	1, 296, 700	14, 412, 100
Lake trout	1, 743, 300	4, 255, 400	5, 998, 700	4, 872, 700	3, 475, 900	1, 518, 400	4, 994, 300
Pike or pickerel (jacks)	9, 200	159, 300	168, 500	63, 600	6, 100	9, 700	15, 800
Rock bass	17, 800	(1)	17, 800	900	----------	----------	----------
Sauger	171, 800	(1)	171, 800	75, 000	800	(1)	800
Sheepshead	10, 800	(1)	10, 800	11, 700	----------	----------	----------
Smelt	1, 800	(1)	1, 800	832, 500	200	(1)	200
Steelhead trout	----------	----------	----------	2, 000	----------	----------	----------
Sturgeon	----------	16, 400	16, 400	----------	----------	100	100
Sucker "mullet"	1, 761, 100	(1)	1, 761, 100	2, 550, 600	221, 900	(1)	221, 900
Whitefish:							
Common	1, 894, 800	1, 936, 600	3, 831, 400	1, 697, 100	512, 300	377, 400	889, 700
Menominee	71, 200	(1)	71, 200	129, 500	45, 900	(1)	45, 900
Yellow perch	982, 900	185, 800	1, 168, 700	1, 740, 200	1, 100	400	1, 500
Yellow pike	1, 574, 000	424, 400	1, 998, 400	98, 500	19, 400	72, 900	92, 300
Crayfish	----------	----------	----------	39, 500	----------	----------	----------
Mussel shells	7, 900	(1)	7, 900	619, 800	----------	----------	----------
Miscellaneous	----------	365, 600	365, 600	----------	----------	93, 200	93, 200
Total	13, 676, 300	8, 377, 700	22, 054, 000	25, 089, 200	17, 873, 500	3, 577, 900	21, 451, 400

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[1] Where there has been a Canadian catch of these species it is included under "Miscellaneous."

Lake fisheries of the United States and Canada, 1935—Continued

CATCH: BY LAKES—Continued

Species	Namakan Lake			Rainy Lake		
	United States	Canada	Total	United States	Canada	Total
	Pounds	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
Burbot	1,000		1,000			
Chubs	300		300		2,500	2,500
Pike or pickerel (jacks)	8,700	3,600	12,300	48,400	186,900	235,300
Sauger				100	(1)	100
Sturgeon		1,800	1,800	300	200	500
Sucker "mullet"	200	(1)	200	1,800	(1)	1,800
Whitefish, common	20,100	20,100	40,200	80,200	33,500	113,700
Yellow perch	200	(1)	200	4,400	14,800	19,200
Yellow pike	18,100	15,100	33,200	60,300	181,200	241,500
Miscellaneous					118,400	118,400
Total	48,600	40,600	89,200	195,500	537,500	733,000

Species	Lake of the Woods			Total, all lakes		
	United States	Canada	Total	United States	Canada	Total
	Pounds	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
Blue pike		1,100	1,100	9,821,800	5,105,100	14,926,900
Bowfin				1,100	(1)	1,100
Burbot	159,900	(1)	159,900	516,100	(1)	516,100
Carp	7,700	1,200	8,900	4,114,900	844,100	4,959,000
Catfish and bullheads	27,900	41,500	69,400	817,200	296,900	1,114,100
Chubs				6,654,500	922,800	7,577,300
Cisco				71,500	96,200	167,700
Crappie	400	(1)	400	400	(1)	400
Eels				46,200	60,900	107,100
Gizzard shad				5,300	(1)	5,300
Goldeye	200	(1)	200	200	(1)	200
Goldfish				158,300	(1)	158,300
Lake herring				22,593,400	2,425,500	25,018,900
Lake trout		27,600	27,600	10,098,800	6,046,600	16,145,400
Mooneye				9,600	(1)	9,600
Pike or pickerel (jacks)	246,500	482,800	729,300	396,600	962,300	1,358,900
Rock bass				30,800	(1)	30,800
Sauger	346,500	6,000	352,500	2,131,600	6,000	2,137,600
Sheepshead				2,373,600	(1)	2,373,600
Smelt				834,500	(1)	834,500
Steelhead trout				2,000	(1)	2,000
Sturgeon	700	100	800	28,900	45,800	74,700
Sucker "mullet"	183,300	300	183,600	5,855,400	300	5,855,700
Sunfish				41,400	(1)	41,400
Tullibees	131,600	82,200	213,800	131,600	82,200	213,800
White bass				739,300	(1)	739,300
Whitefish:						
Common	9,800	338,700	348,500	5,249,700	4,553,800	9,803,500
Menominee				246,600	(1)	246,600
Yellow perch	77,800	10,000	87,800	11,931,700	5,987,600	17,919,300
Yellow pike	1,020,700	904,800	1,925,500	4,593,000	1,946,200	6,539,200
Crawfish				39,500	(1)	39,500
Mussel shells				687,100	(1)	687,100
Miscellaneous		91,500	91,500		2,352,500	2,352,500
Total	2,213,000	1,987,800	4,200,800	90,222,600	31,734,800	121,957,400

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[1] Where there has been a Canadian catch of these species it is included under "Miscellaneous."

Lake fisheries of the United States, 1935

CATCH: BY STATES

Species	New York		Pennsylvania		Ohio	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Blue pike	595, 900	$33, 872	2, 083, 900	$99, 711	7, 142, 000	$357, 100
Bowfin	100	4				
Burbot	5, 200	278	6, 300	62	296, 400	2, 964
Carp	33, 700	908	3, 000	88	1, 279, 000	25, 580
Catfish and bullheads	124, 500	6, 978	2, 800	139	489, 500	20, 474
Cisco	6, 100	734	55, 000	6, 295	10, 400	1, 040
Eels	46, 200	1, 508				
Gizzard shad					5, 300	53
Goldfish					152, 800	1, 530
Lake herring	166, 500	16, 220				
Lake trout	6, 800	723	100	7		
Mooneye					9, 500	99
Pike or pickerel (jacks)	12, 600	781				
Rock bass	9, 000	186				
Sauger					1, 479, 400	73, 970
Sheepshead			12, 400	429	2, 270, 300	50, 635
Sturgeon	15, 400	5, 010	400	134	12, 100	4, 060
Sucker "mullet"	83, 200	2, 435	24, 100	456	943, 700	18, 874
Sunfish	41, 400	1, 024				
White bass	1, 500	32	33, 700	1, 233	692, 500	41, 550
Whitefish, common	69, 600	8, 570	487, 000	78, 837	476, 700	71, 510
Yellow perch	226, 600	11, 723	541, 700	26, 917	8, 303, 200	498, 129
Yellow pike	31, 000	3, 280	20, 800	2, 641	1, 628, 000	162, 800
Mussel shells [1]					54, 000	1, 080
Total	1, 475, 300	94, 266	3, 271, 200	216, 949	25, 244, 800	1, 331, 448

Species	Michigan		Indiana		Illinois	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bowfin	1, 000	$20				
Burbot	17, 500	350	6, 100	$61		
Carp	1, 759, 700	52, 790	4, 500	135		
Catfish and bullheads	133, 100	6, 993				
Chubs	2, 378, 000	166, 456	232, 400	23, 240	520, 000	$62, 400
Goldfish	5, 500	164				
Lake herring	7, 878, 100	236, 345	35, 000	1, 400	65, 000	1, 625
Lake trout	6, 789, 800	1, 018, 475	119, 800	11, 980	260, 000	39, 000
Mooneye	100	1				
Pike or pickerel (jacks)	23, 600	1, 893				
Rock bass	21, 800	653				
Sauger	305, 600	18, 328				
Sheepshead	90, 900	2, 727				
Smelt	44, 200	2, 212				
Steelhead trout			2, 000	300		
Sucker "mullet"	3, 932, 500	157, 323	1, 500	15		
White bass	11, 600	698				
Whitefish:						
Common	3, 757, 500	751, 508	1, 500	270		
Menominee	188, 400	15, 075				
Yellow perch	1, 510, 800	120, 857	33, 200	1, 992	455, 000	27, 300
Yellow pike	1, 796, 300	269, 464				
Mussel shells [1]	480, 000	8, 759	80, 000	1, 600		
Pearls and slugs [1]		183				
Total	31, 126, 000	2, 831, 274	516, 000	40, 993	1, 300, 000	130, 325

[1] From tributary streams.

Lake fisheries of the United States, 1935—Continued

CATCH: BY STATES—Continued

Species	Wisconsin		Minnesota		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Blue pike					9,821,800	$490,683
Bowfin					1,100	24
Burbot	23,700	$237	160,900	$682	516,100	4,634
Carp	1,027,300	20,546	7,700	74	4,114,900	100,121
Catfish and bullheads	39,400	2,370	27,900	1,768	817,200	38,722
Chubs	3,454,000	312,935	70,100	5,932	6,654,500	570,963
Cisco					71,500	8,069
Crappie			400	38	400	38
Eels					46,200	1,508
Gizzard shad					5,300	53
Goldeye			200	4	200	4
Goldfish					158,300	1,694
Lake herring	6,537,900	130,757	7,910,900	163,976	22,593,400	550,323
Lake trout	2,543,500	325,583	378,800	40,450	10,098,800	1,436,218
Mooneye					9,600	100
Pike or pickerel (jacks)	55,500	5,546	304,900	9,295	396,600	17,515
Rock bass					30,800	839
Sauger			346,600	14,266	2,131,600	106,564
Sheepshead					2,373,600	53,791
Smelt	790,300	23,708			834,500	25,920
Steelhead trout					2,000	300
Sturgeon			1,000	250	28,900	9,454
Sucker "mullet"	675,100	19,691	195,300	2,590	5,855,400	201,384
Sunfish					41,400	1,024
Tullibees			131,600	701	131,600	701
White bass					739,300	43,513
Whitefish:						
Common	336,500	50,014	120,900	13,275	5,249,700	973,984
Menominee	50,100	2,900	8,100	432	246,600	18,407
Yellow perch	778,800	46,713	82,400	3,411	11,931,700	737,042
Yellow pike	17,800	2,138	1,099,100	95,119	4,593,000	535,442
Crawfish	39,500	3,556			39,500	3,556
Mussel shells [1]	73,100	731			687,100	12,170
Pearls and slugs [1]						183
Total	16,442,500	947,425	10,846,800	352,263	90,222,600	5,944,943

[1] From tributary streams.

NOTE.—Statistics of operating units were not obtained for 1935.

CATCH: BY LAKES

Species	Lake Ontario		Lake Erie			
	New York		New York		Pennsylvania	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Blue pike	135,700	$10,812	460,200	$23,060	2,083,900	$99,711
Bowfin	100	4				
Burbot	4,800	274	400	4	6,300	62
Carp	24,000	521	9,700	387	3,000	88
Catfish and bullheads	123,700	6,898	800	80	2,800	139
Cisco			6,100	734	55,000	6,295
Eels	46,200	1,508				
Lake herring	166,500	16,220				
Lake trout	6,800	723			100	7
Pike or pickerel (jacks)	12,600	781				
Rock bass	8,900	183	100	3		
Sheepshead					12,400	429
Sturgeon	9,700	3,019	5,700	1,991	400	134
Sucker "mullet"	50,600	1,240	32,600	1,195	24,100	456
Sunfish	41,400	1,024				
White bass			1,500	32	33,700	1,233
Whitefish, common	40,500	4,789	29,100	3,781	487,000	78,837
Yellow perch	80,200	4,336	146,400	7,387	541,700	26,917
Yellow pike	18,300	2,000	12,700	1,280	20,800	2,641
Total	770,000	54,332	705,300	39,934	3,271,200	216,949

Lake fisheries of the United States, 1935—Continued

CATCH: BY LAKES—Continued

Species	Lake Erie—Continued					
	Ohio		Michigan		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Blue pike	7, 142, 000	$357, 100	----------	----------	9, 686, 100	$479, 871
Burbot	296, 400	2, 964	800	$15	303, 900	3, 045
Carp	1, 279, 000	25, 580	658, 100	19, 743	1, 949, 800	45, 798
Catfish and bullheads	489, 500	20, 474	59, 300	2, 391	552, 400	23, 084
Cisco	10, 400	1, 040	----------	----------	71, 500	8, 069
Gizzard shad	5, 300	53	----------	----------	5, 300	53
Goldfish	152, 800	1, 530	5, 500	164	158, 300	1, 694
Lake trout	----------	----------	----------	----------	100	7
Mooneye	9, 500	99	100	1	9, 600	100
Pike or pickerel (jacks)	----------	----------	1, 500	124	1, 500	124
Rock bass	----------	----------	3, 100	93	3, 200	96
Sauger	1, 479, 400	73, 970	58, 000	3, 477	1, 537, 400	77, 447
Sheepshead	2, 270, 300	50, 635	68, 400	2, 053	2, 351, 100	53, 117
Sturgeon	12, 100	4, 060	----------	----------	18, 200	6, 185
Sucker "mullet"	943, 700	18, 874	85, 500	3, 422	1, 085, 900	23, 947
White bass	692, 500	41, 550	11, 600	698	739, 300	43, 513
Whitefish, common	476, 700	71, 510	2, 100	415	994, 900	154, 543
Yellow perch	8, 303, 200	498, 129	53, 600	4, 283	9, 044, 900	536, 716
Yellow pike	1, 628, 000	162, 800	122, 200	18, 335	1, 783, 700	185, 056
Mussel shells [1]	54, 000	1, 080	5, 400	81	59, 400	1, 161
Pearls and slugs [1]	----------	----------	----------	6	----------	6
Total	25, 244, 800	1, 331, 448	1, 135, 200	55, 301	30, 356, 500	1, 643, 632

Species	Lake Huron		Lake Michigan			
	Michigan		Michigan		Indiana	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bowfin	1, 000	$20	----------	----------	----------	----------
Burbot	5, 200	104	10, 100	$203	6, 100	$61
Carp	1, 079, 300	32, 379	22, 200	665	4, 500	135
Catfish and bullheads	71, 100	4, 441	2, 500	155	----------	----------
Chubs	386, 900	27, 080	1, 801, 400	126, 096	232, 400	23, 240
Lake herring	3, 886, 200	116, 587	1, 209, 600	36, 289	35, 000	1, 400
Lake trout	1, 743, 300	261, 495	2, 451, 000	367, 652	119, 800	11, 980
Pike or pickerel (jacks)	9, 200	737	11, 000	879	----------	----------
Rock bass	17, 800	535	900	25	----------	----------
Sauger	171, 800	10, 306	75, 000	4, 497	----------	----------
Sheepshead	10, 800	323	11, 700	351	----------	----------
Smelt	1, 800	90	42, 200	2, 112	----------	----------
Steelhead trout	----------	----------	----------	----------	2, 000	300
Sucker "mullet"	1, 761, 100	70, 445	1, 930, 100	77, 224	1, 500	15
Whitefish:						
Common	1, 894, 800	378, 962	1, 431, 700	286, 344	1, 500	270
Menominee	71, 200	5, 699	90, 000	7, 197	----------	----------
Yellow perch	982, 900	78, 632	473, 700	37, 897	33, 200	1, 992
Yellow pike	1, 574, 000	236, 106	95, 900	14, 393	----------	----------
Mussel shells [1]	7, 900	119	466, 700	8, 559	80, 000	1, 600
Pearls and slugs [1]	----------	2	----------	175	----------	----------
Total	13, 676, 300	1, 224, 062	10, 125, 700	970, 713	516, 000	40, 993

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[1] From tributary streams.

Lake fisheries of the United States, 1935—Continued

CATCH: By lakes—Continued

Species	Lake Michigan—Continued					
	Illinois		Wisconsin		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Burbot			23,700	$237	39,900	$501
Carp			1,027,300	20,546	1,054,000	21,345
Catfish and bullheads			39,400	2,370	41,900	2,525
Chubs	520,000	$62,400	3,240,700	291,606	5,794,500	503,342
Lake herring	65,000	1,625	4,115,700	82,314	5,425,300	121,628
Lake trout	260,000	39,000	2,041,900	265,395	4,872,700	684,027
Pike or pickerel (jacks)			52,600	5,259	63,600	6,138
Rock bass					900	25
Sauger					75,000	4,497
Sheepshead					11,700	351
Smelt			790,300	23,708	832,500	25,820
Steelhead trout					2,000	300
Sucker "mullet"			618,000	18,570	2,550,600	95,809
Whitefish:						
Common			263,900	36,946	1,697,100	323,560
Menominee			39,500	2,371	129,500	9,568
Yellow perch	455,000	27,300	778,300	46,688	1,740,200	113,877
Yellow pike			2,600	317	98,500	14,710
Crawfish			39,500	3,556	39,500	3,556
Mussel shells [1]			73,100	731	619,800	10,890
Pearls and slugs [1]						175
Total	1,300,000	130,325	13,147,500	800,614	25,089,200	1,942,645

Species	Lake Superior					
	Michigan		Wisconsin		Minnesota	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Burbot	1,400	$28				
Carp	100	3				
Catfish and bullheads	200	6				
Chubs	189,700	13,280	213,300	$21,329	69,800	$5,929
Lake herring	2,782,300	83,469	2,422,200	48,443	7,910,900	163,976
Lake trout	2,595,500	389,328	501,600	60,188	378,800	40,450
Pike or pickerel (jacks)	1,900	153	2,900	287	1,300	91
Sauger	800	48				
Smelt	200	10				
Sucker "mullet"	155,800	6,232	56,100	1,121	10,000	255
Whitefish:						
Common	428,900	85,787	72,600	13,068	10,800	1,466
Menominee	27,200	2,179	10,600	529	8,100	432
Yellow perch	600	45	500	25		
Yellow pike	4,200	630	15,200	1,821		
Total	6,188,800	581,198	3,295,000	146,811	8,389,700	212,599

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[1] From tributary streams.

Lake fisheries of the United States, 1935—Continued

CATCH: BY LAKES—Continued

Species	Lake Superior—Con.		Lake of the Woods, Rainy Lake, and Namakan Lake, Minnesota		Total, all lakes	
	Total					
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Blue pike	----------	----------	----------	----------	9, 821, 800	$490, 683
Bowfin	----------	----------	----------	----------	1, 100	24
Burbot	1, 400	$28	160, 900	$682	516, 100	4, 634
Carp	100	3	7, 700	74	4, 114, 900	100, 121
Catfish and bullheads	200	6	27, 900	1, 768	817, 200	38, 722
Chubs	472, 800	40, 538	300	3	6, 654, 500	570, 963
Cisco	----------	----------	----------	----------	71, 500	8, 069
Crappie	----------	----------	400	38	400	38
Eels	----------	----------	----------	----------	46, 200	1, 508
Gizzard shad	----------	----------	----------	----------	5, 300	53
Goldeye	----------	----------	200	4	200	4
Goldfish	----------	----------	----------	----------	158, 300	1, 694
Lake herring	13, 115, 400	295, 888	----------	----------	22, 593, 400	550, 323
Lake trout	3, 475, 900	489, 966	----------	----------	10, 098, 800	1, 436, 218
Mooneye	----------	----------	----------	----------	9, 600	100
Pike or pickerel (jacks)	6, 100	531	303, 600	9, 204	396, 600	17, 515
Rock bass	----------	----------	----------	----------	30, 800	839
Sauger	800	48	346, 600	14, 266	2, 131, 600	106, 564
Sheepshead	----------	----------	----------	----------	2, 373, 600	53, 791
Smelt	200	10	----------	----------	834, 500	25, 920
Steelhead trout	----------	----------	----------	----------	2, 000	300
Sturgeon	----------	----------	1, 000	250	28, 900	9, 454
Sucker "mullet"	221, 900	7, 608	185, 300	2, 335	5, 855, 400	201, 384
Sunfish	----------	----------	----------	----------	41, 400	1, 024
Tullibees	----------	----------	131, 600	701	131, 600	701
White bass	----------	----------	----------	----------	739, 300	43, 513
Whitefish:						
Common	512, 300	100, 321	110, 100	11, 809	5, 249, 700	973, 984
Menominee	45, 900	3, 140	----------	----------	246, 600	18, 407
Yellow perch	1, 100	70	82, 400	3, 411	11, 931, 700	737, 042
Yellow pike	19, 400	2, 451	1, 099, 100	95, 119	4, 593, 000	535, 442
Crawfish	----------	----------	----------	----------	39, 500	3, 556
Mussel shells [1]	----------	----------	----------	----------	687, 100	12, 170
Pearls and slugs [1]	----------	----------	----------	----------	----------	183
Total	17, 873, 500	940, 608	2, 457, 100	139, 664	90, 222, 600	5, 944, 943

[1] From tributary streams.

FISHERIES OF THE MISSISSIPPI RIVER AND TRIBUTARIES [12]

The most recent complete catch statistics of the fisheries for the States of the Mississippi River and tributaries are those collected for the year 1931. The yield of fishery products in that year amounted to 82,382,523 pounds, valued at $2,897,357, which was a decrease of 22 percent in quantity and 36 percent in value as compared with the quantity and value of the catch in 1922 when the most recent preceding survey was made. Detailed statistics of the fisheries of the Mississippi River and tributaries for 1931 appear in "Fishery Industries of the United States, 1932" by R. H. Fiedler, appendix III to the Report of the Commissioner of Fisheries for the fiscal year 1933. A summary of these fisheries in 1931, as well as certain data for 1936, appear in the following tables.

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[12] For a clearer understanding of the statistics published in this section, the reader is referred to the section in the latter part of the document entitled "Statistical survey procedure."

Fisheries of the Mississippi River and tributaries, 1931

OPERATING UNITS: BY STATES

Item	Alabama	Arkansas	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Minnesota
Fishermen:									
On boats and shore:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Regular	104	1, 463	708	20	245	35	89	1, 402	160
Casual	131	1, 524	1, 318	1, 735	648	88	440	3, 108	578
Total	235	2, 987	2, 026	1, 755	893	123	529	4, 510	738
Boats:									
Motor	32	907	676	544	309	18	92	1, 225	65
Other	190	2, 359	957	1, 189	457	123	420	2, 369	446
Apparatus:									
Haul seines		16	127	50	133		24	377	113
Length, yards		7, 308	33, 975	5, 170	36, 339		2, 057	85, 166	49, 968
Anchor gill nets		4						74	9
Square yards		2, 800						17, 400	9, 999
Trammel nets		31	28	3		90		78	
Square yards		3, 899	4, 890	360		9, 026		19, 696	
Lines, trot	449	5, 327	1, 312	320	1, 158	17	627	5, 757	186
Hooks	35, 980	455, 000	124, 715	16, 767	186, 250	360	37, 395	1, 392, 200	41, 800
Pound nets					2				27
Fyke nets	610	5, 346	9, 852	335	1, 981	189	1, 231	5, 908	74
Dip nets			22		10			159	
Traps:									
Crawfish								18	
Shrimp								88	
Baskets			3, 769						
Mussel dredges		426	14						
Yards at mouth		286	10						
Crowfoot bars	168	1, 038	840	1, 092	464		256	10	192
Tongs		159		72				5	
Rakes		70							
Forks		102	33	1, 278		29		5	
Grabs								2, 232	

Item	Mississippi	Missouri	Nebraska	Ohio	Oklahoma	South Dakota	Tennessee	Texas	Wisconsin	Total
Fishermen:										
On boats and shore:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Regular	211	177			5		327	5	202	5, 153
Casual	198	170	299	49	19	67	206	41	112	10, 731
Total	409	347	299	49	24	67	533	46	314	15, 884
Boats:										
Motor	138	84	30			2	138	6	160	4, 426
Other	329	304	187	49	18	34	467	42	180	10, 120
Apparatus:										
Haul seines	16	47	12	2	2	11			83	1, 013
Length, yards	6, 885	5, 668	906	180	60	1, 948			20, 149	255, 779
Anchor gill nets	4	1			3				6	101
Square yards	800	160			990				13, 488	45, 637
Trammel nets	17	104	115				52			518
Square yards	2, 867	14, 668	4, 833				3, 560			63, 799
Lines:										
Hand							67			67
Hooks							67			67
Trot	847	516		19	29	18	464	80	3	17, 129
Hooks	72, 155	34, 600		900	1, 075	3, 600	41, 690	14, 500	125	2, 459, 112
Pound nets									345	374
Fyke nets	2, 591	1, 872	296	76	85	68	1, 735	70	222	32, 541
Dip nets										191
Traps:										
Crawfish										18
Shrimp	350									438
Baskets										3, 769
Spears							12			12
Mussel dredges										440
Yards at mouth										296
Crowfoot bars							230		190	4, 480
Tongs		9								245
Rakes										70
Forks										1, 447
Grabs										2, 232

Fisheries of the Mississippi River and tributaries, 1931—Continued

CATCH: BY STATES

Species	Alabama		Arkansas		Illinois		Indiana	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bowfin			700	$28	8, 308	$241		
Buffalofish	21, 330	$2, 342	2, 182, 446	131, 474	911, 609	51, 893	85, 045	$8, 156
Carp	11, 000	1, 118	808, 206	27, 268	4, 878, 744	128, 221	157, 641	10, 162
Catfish and bullheads	81, 200	8, 850	1, 077, 343	93, 150	647, 696	68, 890	35, 370	5, 302
Crappie	9, 772	1, 004	11, 325	227				
Eels					4, 985	322		
Mooneye					1, 000	20		
Paddlefish or spoonbill cat	3, 958	338	93, 200	2, 159	104, 846	5, 480	16, 492	1, 724
Quillback or "American carp"	7, 657	875	6. 830	676	17, 532	608	30, 312	1, 436
Sheepshead	45, 909	4, 972	676, 358	29, 877	177, 709	11, 321	38, 740	3, 711
Sturgeon, shovelnose	575	70			39, 766	3, 448	3, 013	292
Sucker "mullet"	5, 752	609	3, 309	235	25, 130	1, 087	16, 797	1, 156
White bass					1, 200	92		
Yellow pike							4, 550	693
Total	187, 153	20, 178	4, 859, 717	285. 094	6, 818, 525	271, 623	387, 960	32, 632
SHELLFISH, ETC.								
Mussel shells	1, 635, 000	10, 132	10,872,790	108, 819	7, 429, 528	82, 894	7, 328, 736	105, 632
Pearls				3, 137		190		125
Slugs		2, 441		14, 401		11, 835		18, 788
Turtles:								
Snapper					14, 577	696	500	25
Soft shell							400	20
Total	1, 635, 000	12, 576	10,872,790	126. 357	7, 444, 105	95, 615	7, 329, 636	124, 590
Grand total	1, 822, 153	32, 751	15,732,507	411. 451	14,262,630	367, 238	7, 717, 596	157, 222

Species	Iowa		Kansas		Kentucky		Louisiana [1]	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bowfin	91, 825	$3, 759					5, 715	$114
Buffalofish	746, 615	59, 705	24, 325	$2, 222	164, 558	$14, 429	8, 784, 314	263, 261
Carp	1, 594, 244	80, 134	117, 489	10, 956	113, 461	8, 124	204, 743	4, 127
Catfish and bullheads	467, 340	48, 593	770	111	131, 777	17, 043	6, 602, 987	528, 579
Eels	325	15					200	6
Garfish							72, 450	791
Mooneye	1, 100	28			990	105		
Paddlefish or spoonbill cat	9, 400	638			18, 322	1, 617	495, 544	21, 508
Pike or pickerel	4, 700	470						
Quillback or "American carp"	60, 450	1, 339	100	11	11, 355	984	20, 700	431
Sauger					2, 365	451		
Sheepshead	343. 449	17, 619			52, 560	6, 762	1, 976, 600	39, 577
Sturgeon, shovelnose	17, 650	1, 663	175	24	2, 967	380		
Sucker "mullet"	36, 550	822			10, 294	1, 331		
Yellow pike					70	18		
Total	3, 373, 648	214, 785	142. 859	13, 324	508, 719	51, 244	18, 163, 253	858, 394
SHELLFISH, ETC.								
Crawfish							29, 248	292
Shrimp							38, 503	2, 423
Mussel shells	4, 366, 219	65, 685	312, 562	2, 713	1, 113, 032	8, 786	50, 000	375
Pearls		7, 244						
Slugs		13, 924		636		852		
Frogs							872, 651	130, 612
Terrapin	19. 100	377						
Turtles:								
Snapper	2. 000	40					58, 013	2, 244
Soft shell	17, 000	310					1, 700	34
Total	4, 404, 319	87, 610	312, 562	3, 349	1, 113, 032	9, 638	1, 050, 115	135, 980
Grand total	7, 777. 967	302, 395	455, 421	16, 673	1, 621, 751	60, 882	19, 213, 368	994, 374

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[1] According to statistics furnished by the Louisiana Department of Conservation, the catch of commercial fresh-water fish in Louisiana during 1936 was as follows: Catfish, 4,364,000 pounds, valued at $405,000; gaspergou, 1,750,000 pounds, valued at $105,000; spoonbill cat, 750,000 pounds, valued at $60,000; buffalofish, 10,000,000 pounds, valued at $600,000; fresh-water turtles, 76,500 pounds, valued at $11,475; frogs, 2,750,000 pounds, valued at $650,000; fresh-water shrimp, 2,500,000 pounds, valued at $200,000; crayfish, 2,500,000 pounds, valued at $175,000; terrapin, 30,660 in number, valued at $30,000; and "baby" green turtles, 5,200,000 in number, valued at $52,000.

Fisheries of the Mississippi River and tributaries, 1931—Continued

CATCH: BY STATES—Continued

Species	Minnesota		Mississippi		Missouri		Nebraska	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bowfin	16, 598	$282	--------	--------	17, 000	$520	--------	------
Buffalofish	257, 431	15, 092	1, 511, 126	$63, 824	178, 991	16, 414	18, 104	$1, 813
Carp	2, 151, 119	97, 756	225, 276	6, 730	433, 117	33, 356	93, 032	9, 305
Catfish and bullheads	53, 804	4, 841	635, 049	42, 384	91, 430	15, 487	34, 174	5, 135
Eels	--------	--------	250	20	1, 055	53	--------	------
Minnows	--------	--------	--------	--------	525	209	--------	------
Paddlefish or "spoonbill cat"	--------	--------	158, 821	5, 879	40, 103	2, 917	--------	------
Quillback or "American carp"	17, 246	519	2, 157	42	13, 672	946	--------	------
Sheepshead	152, 545	7, 938	106, 844	2, 576	38, 186	3, 773	--------	------
Sturgeon, shovelnose	1, 634	115	100	3	17, 282	1, 703	--------	------
Sucker "mullet"	65, 273	1, 955	--------	--------	2, 275	292	--------	------
Total	2, 715, 650	128, 498	2, 639, 623	121, 458	833, 636	75, 670	145, 310	16, 253
SHELLFISH, ETC.								
Shrimp	--------	--------	10, 000	1, 500	--------	--------	--------	------
Mussel shells	782, 630	7, 827	--------	--------	94, 000	1, 193	--------	------
Pearls	--------	157	--------	--------	--------	--------	--------	------
Slugs	--------	1, 174	--------	--------	--------	118	--------	------
Turtles, snapper	--------	--------	100	3	--------	--------	--------	------
Total	782, 630	9, 158	10, 100	1, 503	94, 000	1, 311	--------	------
Grand total	3, 498, 280	137, 656	2, 649, 723	122, 961	927, 636	76, 981	145, 310	16, 253

Species	Ohio		Oklahoma		South Dakota		Tennessee [2]	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Black bass	--------	--------	--------	--------	--------	--------	14, 000	$1, 680
Buffalofish	6, 433	$662	21, 605	$2, 142	38, 926	$3, 894	478, 592	34, 247
Carp	14, 370	1, 543	4, 268	425	52, 836	2, 642	247, 841	9, 597
Catfish and bullheads	4, 380	811	4, 935	695	13, 500	3, 528	271, 753	24, 750
Crappie	--------	--------	--------	--------	1, 392	70	18, 652	1, 658
Eels	--------	--------	--------	--------	--------	--------	163	25
Paddlefish or "spoonbill cat"	--------	--------	5, 332	533	400	40	5, 034	301
Quillback or "American carp"	1, 195	119	1, 950	195	4, 364	220	6, 065	843
Sheepshead	1, 318	224	1, 550	155	697	70	197, 670	10, 465
Sturgeon, shovelnose	558	72	--------	--------	--------	--------	3, 706	393
Sucker "mullet"	2, 902	268	--------	--------	2, 246	112	8, 323	1, 119
Sunfish	--------	--------	--------	--------	--------	--------	21, 850	1, 094
White bass	--------	--------	--------	--------	--------	--------	2, 100	106
Yellow pike	325	60	--------	--------	--------	--------	--------	------
Total	31, 481	3, 759	39, 640	4, 145	114, 361	10, 576	1, 275, 749	86, 275
SHELLFISH, ETC.								
Mussel shells	154, 000	3, 005	--------	--------	--------	--------	2, 157, 000	15, 604
Pearls	--------	--------	--------	--------	--------	--------	--------	28
Slugs	--------	308	--------	--------	--------	--------	--------	1, 724
Frogs	--------	--------	--------	--------	--------	--------	2, 250	270
Terrapin	--------	--------	--------	--------	--------	--------	70	14
Total	154, 000	3, 313	--------	--------	--------	--------	2, 159, 320	17, 640
Grand total	185, 481	7, 072	39, 640	4, 145	114, 361	10, 576	3, 435, 069	103,915

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[2] According to statistics furnished the Bureau by the office of fish technician, division of game and fish, Tennessee Department of Conservation, the catch of commercial fresh-water fish in Reelfoot Lake in Tennessee during the fiscal year May 1, 1935, to Apr. 30, 1936, was as follows: Bass, 9,237 pounds; crappie, 62,478 pounds; sunfish, 55,710 pounds; yellow bass, 12,392 pounds; buffalofish, 244,169 pounds; drum, 32,832 pounds; carp, 25,150 pounds; bullheads. 24,408 pounds; catfish, 90,203 pounds; eels, 574 pounds; spoonbill cat, 1,174 pounds; white bass, 275 pounds; and pike, 72 pounds.

Fisheries of the Mississippi River and tributaries, 1931—Continued

CATCH: BY STATES—Continued

Species	Texas		Wisconsin		Total	
FISH	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Black bass					14,000	$1,680
Bowfin			288,170	$4,355	428,316	9,299
Buffalofish	73,000	$2,190	268,001	13,528	15,772,451	687,288
Carp	6,900	138	777,474	23,800	11,891,761	455,399
Catfish and bullheads	47,800	3,824	65,539	5,825	10,266,847	877,798
Crappie					41,141	2,959
Eels					6,978	441
Garfish					72,450	791
Minnows					525	209
Mooneye					3,090	153
Paddlefish or "spoonbill cat"					951,452	43,134
Pike or pickerel					4,700	470
Quillback or "American carp"	500	10	66,353	2,032	268,438	11,286
Sauger					2,365	451
Sheepshead	10,300	206	84,409	3,692	3,904,844	142,938
Sturgeon, shovelnose					87,426	8,163
Sucker "mullet"			135,984	3,696	314,835	12,682
Sunfish					21,850	1,094
White bass					3,300	198
Yellow pike					4,945	771
Total	138,500	6,368	1,685,930	56,928	44,061,714	2,257,204
SHELLFISH, ETC.						
Crawfish					29,248	292
Shrimp					48,503	3,923
Mussel shells			959,200	8,946	37,254,697	421,611
Pearls				555		11,436
Slugs				2,012		68,216
Frogs					874,901	130,882
Terrapin					19,170	391
Turtles:						
Snapper					75,190	3,008
Soft shell					19,100	394
Total			959,200	11,513	38,320,809	640,153
Grand total	138,500	6,368	2,645,130	68,441	82,382,523	2,897,357

Industries related to the fisheries of the Mississippi River and tributaries

OPERATING UNITS, SALARIES, AND WAGES, 1931

Item	Arkansas	Illinois	Indiana	Iowa	Kentucky	Louisiana	Minnesota and North Dakota
	Number	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Transporting:							
Persons engaged	13				11	5	
Vessels, motor	4				2	2	
Net tonnage	69				15	20	
Wholesale and manufacturing:							
Establishments	6	38	4	61	11	22	13
Persons engaged:							
Proprietors	3	42	1	52	8	24	11
Salaried employees	9	3	5	79	20	14	27
Wage earners:							
Average for season	152	331	140	2,500	261	70	112
Average for year	72	235	93	2,179	159	68	112
Paid to salaried employees	$11,417	$9,520	$6,820	$141,346	$33,159	$12,400	$55,200
Paid to wage earners	$53,503	$145,683	$51,444	$1,417,678	$81,643	$37,700	$81,500
Total salaries and wages	$64,920	$155,203	$58,264	$1,559,024	$114,802	$50,100	$136,700
Fishermen manufacturing		4	2			200	

Industries related to the fisheries of the Mississippi River and tributaries—Contd.

OPERATING UNITS, SALARIES, AND WAGES, 1931—Continued

Item	Mississippi	Missouri and Oklahoma	Nebraska and Kansas	Ohio and Pennsylvania	Tennessee	Wisconsin	Total
Transporting:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Persons engaged							29
Vessels, motor							8
Net tonnage							104
Wholesale and manufacturing:							
Establishments	6	21	3	13	11	8	217
Persons engaged:							
Proprietors	7	24	3	17	9	3	204
Salaried employees	3	125	8	37	15	10	355
Wage earners:							
Average for season	26	328	52	175	90	38	4, 275
Average for year	26	261	52	145	52	29	3, 483
Paid to salaried employees	$16, 000	$291, 874	$17, 400	$95, 878	$34, 884	$12, 998	$738, 896
Paid to wage earners	$22, 382	$202, 944	$45, 580	$138, 817	$38, 177	$24, 483	$2, 341, 534
Total salaries and wages	$38, 382	$494, 818	$62, 980	$234, 695	$73, 061	$37, 481	$3, 080, 430
Fishermen manufacturing	7	3					216

PRODUCTS MANUFACTURED

Item	Indiana		Iowa, Illinois, and Missouri		Louisiana	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
By manufacturing establishments:						
Salmon, smoked, pounds			240, 000	$48, 800		
Sturgeon, smoked, do			162, 000	39, 140		
Mussel-shell products:						
Buttons [1], gross			14, 591, 680	3, 666, 873		
Poultry feed [1], tons			4, 701	25, 534		
Lime [1], do			1, 956	1, 726		
Unclassified, pounds				[2] 75, 849		
Total				3, 857, 922		
By fishermen:						
Alligator hides, pounds					88, 356	$7, 363
Carp, smoked, do			667	67		
Paddlefish roe, salted, do	450	$180	900	540		
Sheepshead, smoked, do			617	77		
Sturgeon:						
Smoked, do			1, 333	400		
Roe, salted, do			35	32		
Total	450	180	3, 552	1, 116	88, 356	7, 363
Grand total	450	180		3, 859, 038	88, 356	7, 363

Item	Minnesota and Nebraska		Mississippi		Ohio, Tennessee, and Pennsylvania	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
By manufacturing establishments:						
Chubs, smoked, pounds					106, 600	$26, 650
Salmon, smoked, do	(3)	(3)			(3)	(3)
Sturgeon, smoked, do	(3)	(3)				
Whitefish, smoked, do	255, 000	$47, 200			(3)	(3)
Unclassified, do	[4] 66, 600	[4] 19, 793			[5] 184, 900	[5] 50, 555
Total	321, 600	66, 993			291, 500	77, 205
By fishermen, paddlefish roe, salted			245	$92		
Grand total	321, 600	66, 993	245	92	291, 500	77, 205

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[1] Data are for 1936.

[2] Data are for 1931 and 1936. Includes smoked buffalofish and tullibees, and mussel-shell chips and novelties.

[3] The production of this item is included under unclassified products.

[4] Includes smoked eels, salmon, and sturgeon.

[5] Includes smoked buffalofish, butterfish, carp, lake trout, paddlefish, sablefish, salmon, tullibees, and whitefish.

NOTE.—Unless otherwise indicated the data are for 1931. The total value of the manufactured products for the States of the Mississippi River and tributaries was as follows: By manufacturing establishments, $4,002,120; and by fishermen, $8,751. Some of the products may have been manufactured from fishery products imported from another State or a foreign country; therefore, they cannot be correlated directly with the catch within the State.

LAKE PEPIN

Fisheries of Lake Pepin, 1936

OPERATING UNITS: BY GEAR

Item	Haul seines	Anchor gill nets	Trot lines	Total, exclusive of duplication
Fishermen:	*Number*	*Number*	*Number*	*Number*
Regular	18	24		24
Casual	30	44	18	75
Total	48	68	18	99
Boats:				
Motor	15	38	14	49
Other	15	9	4	23
Apparatus:				
Number	15	68	18	
Length, yards	6,465			
Square yards		189,553		
Hooks			590	

CATCH: BY GEAR

Species	Haul seines		Anchor gill nets		Trot lines		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bowfin	3,500	$105	500	$15			4,000	$120
Buffalofish	10,500	525	13,100	655			23,600	1,180
Carp	260,000	7,800	221,000	6,630	7,600	$228	488,600	14,658
Catfish and bullheads	13,900	1,390	1,600	160	17,100	1,710	32,600	3,260
Mooneye	2,700	54	200	4			2,900	58
Sheepshead	27,600	1,380	6,000	300	5,300	265	38,900	1,945
Sucker "mullet"	2,500	50	500	10			3,000	60
Turtles:								
Snapper	3,200	64					3,200	64
Soft shell	3,500	70					3,500	70
Total	327,400	11,438	242,900	7,774	30,000	2,203	600,300	21,415

OPERATING UNITS: BY STATES

Item	Minnesota	Wisconsin	Total for lake
Fishermen:	*Number*	*Number*	*Number*
Regular		24	24
Casual	14	61	75
Total	14	85	99
Boats:			
Motor	10	39	49
Other	4	19	23
Apparatus:			
Haul seines		15	15
Length, yards		6,465	6,465
Anchor gill nets		68	68
Square yards		189,553	189,553
Trot lines	14	4	18
Hooks	490	100	590

Fisheries of Lake Pepin, 1936—Continued

CATCH: BY STATES

Species	Minnesota		Wisconsin		Total for lake	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bowfin			4,000	$120	4,000	$120
Buffalofish			23,600	1,180	23,600	1,180
Carp	7,100	$213	481,500	14,445	488,600	14,658
Catfish and bullheads	15,100	1,510	17,500	1,750	32,600	3,260
Mooneye			2,900	58	2,900	58
Sheepshead	4,800	240	34,100	1,705	38,900	1,945
Sucker "mullet"			3,000	60	3,000	60
Turtles:						
Snapper			3,200	64	3,200	64
Soft shell			3,500	70	3,500	70
Total	27,000	1,963	573,300	19,452	600,300	21,415

LAKE KEOKUK

Fisheries of Lake Keokuk, 1936

OPERATING UNITS: BY GEAR

Item	Haul seines	Trammel nets	Trot lines	Fyke nets	Total, exclusive of duplication
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*
Regular	12	16	16	50	65
Casual	18	11	73	89	113
Total	30	27	89	139	178
Boats:					
Motor	8	27	56	99	110
Other	8		27	47	64
Apparatus:					
Number	8	27	264	2,085	
Length, yards	1,633				
Square yards		3,609			
Hooks			24,750		

CATCH: BY GEAR

Species	Haul seines		Trammel nets		Trot lines		Fyke nets		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bowfin	2,000	$60					1,200	$36	3,200	$96
Buffalofish	38,000	1,900	11,500	$575			81,500	4,075	131,000	6,550
Carp	188,700	5,661	60,000	1,860	24,000	$730	207,500	6,365	480,200	14,616
Catfish and bullheads	17,600	1,760	1,900	190	48,000	4,800	117,300	11,730	184,800	18,480
Mooneye	500	15							500	15
Paddlefish or spoonbill cat	4,400	445							4,400	445
Sheepshead	36,200	1,810	17,000	850	8,500	425	65,700	3,285	127,400	6,370
Sucker "mullet"	2,800	56					3,200	64	6,000	120
Turtles:										
Snapper	6,500	130			800	16	3,600	72	10,900	218
Soft shell	1,100	22			100	2	1,200	24	2,400	48
Total	297,800	11,859	90,400	3,475	81,400	5,973	481,200	25,651	950,800	46,958

Fisheries of Lake Keokuk, 1936—Continued

OPERATING UNITS: BY STATES

Item	Illinois	Iowa	Total for lake
Fishermen:	*Number*	*Number*	*Number*
Regular	36	29	65
Casual	64	49	113
Total	100	78	178
Boats:			
Motor	68	42	110
Other	28	36	64
Apparatus:			
Haul seines	1	7	8
Length, yards	333	1,300	1,633
Trammel nets	21	6	27
Square yards	2,866	743	3,609
Trot lines	242	22	264
Hooks	24,200	550	24,750
Fyke nets	1,455	630	2,085

CATCH: BY STATES

Species	Illinois		Iowa		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bowfin	1,500	$45	1,700	$51	3,200	$96
Buffalofish	44,000	2,200	87,000	4,350	131,000	6,550
Carp	176,700	5,371	303,500	9,245	480,200	14,616
Catfish and bullheads	113,600	11,360	71,200	7,120	184,800	18,480
Mooneye	500	15			500	15
Paddlefish or spoonbill cat	3,000	300	1,400	145	4,400	445
Sheepshead	68,900	3,445	58,500	2,925	127,400	6,370
Sucker "mullet"	4,000	80	2,000	40	6,000	120
Turtles:						
Snapper	3,700	74	7,200	144	10,900	218
Soft shell	900	18	1,500	30	2,400	48
Total	416,800	22,908	534,000	24,050	950,800	46,958

MISSISSIPPI RIVER BETWEEN LAKE PEPIN AND LAKE KEOKUK

Fisheries of the Mississippi River between Lake Pepin and Lake Keokuk, 1936

OPERATING UNITS: BY GEAR

Item	Haul seines	Anchor gill nets	Trammel nets	Trot lines	Fyke nets	Total, exclusive of duplication
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Regular	164	8	29	22	233	389
Casual	256	7	25	416	371	628
Total	420	15	54	438	604	1,017
Boats:						
Motor	120	14	43	257	394	548
Other	120			162	164	366
Apparatus:						
Number	109	14	41	622	10,490	
Length, yards	19,174					
Square yards		25,641	5,333			
Hooks				45,635		

Fisheries of the Mississippi River between Lake Pepin and Lake Keokuk, 1936—Con.

CATCH: BY GEAR

Species	Haul seines		Anchor gill nets		Trammel nets	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bowfin	92,000	$2,755	500	$15		
Buffalofish	596,700	29,815	27,500	1,375	64,000	$3,170
Carp	1,932,000	57,710	81,000	2,430	130,500	4,075
Catfish and bullheads	94,500	9,450	2,300	230	7,000	700
Eels	600	60				
Mooneye	48,700	848				
Paddlefish or spoonbill cat	4,700	470				
Pike or pickerel	37,300	3,605			1,000	100
Sheepshead	312,100	15,555	10,000	500	15,000	775
Sturgeon, shovelnose	7,300	725			10,900	1,090
Sucker "mullet"	72,100	1,442	700	14	1,100	22
Turtles:						
Snapper	34,500	690				
Soft shell	19,300	386				
Total	3,251,800	123,511	122,000	4,564	229,500	9,932

Species	Trot lines		Fyke nets		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bowfin			25,900	$778	118,400	$3,548
Buffalofish			495,300	25,765	1,183,500	60,125
Carp	93,200	$2,816	1,146,700	35,901	3,383,400	102,932
Catfish and bullheads	188,700	18,770	712,300	71,230	1,004,800	100,380
Eels	1,400	140	200	20	2,200	220
Mooneye			2,100	42	50,800	890
Paddlefish or spoonbill cat					4,700	470
Pike or pickerel			1,200	120	39,500	3,825
Sheepshead	43,900	2,185	260,200	13,010	641,200	32,025
Sturgeon, shovelnose	1,800	180			20,000	1,995
Sucker "mullet"			38,700	772	112,600	2,250
Turtles:						
Snapper			10,400	208	44,900	898
Soft shell			4,600	92	23,900	478
Total	329,000	24,091	2,697,600	147,938	6,629,900	310,036

OPERATING UNITS: BY STATES

Item	Illinois	Iowa	Minnesota	Wisconsin	Total
Fishermen:	*Number*	*Number*	*Number*	*Number*	*Number*
Regular	94	171	8	116	389
Casual	192	229	47	160	628
Total	286	400	55	276	1,017
Boats:					
Motor	163	224	26	135	548
Other	113	133	22	98	366
Apparatus:					
Haul seines	23	32	6	48	109
Length, yards	4,350	5,132	1,064	8,628	19,174
Anchor gill nets			1	13	14
Square yards			2,666	22,975	25,641
Trammel nets	12	29			41
Square yards	1,633	3,700			5,333
Trot lines	343	141	39	99	622
Hooks	34,300	4,450	1,245	5,640	45,635
Fyke nets	3,215	4,885		2,390	10,490

Fisheries of the Mississippi River between Lake Pepin and Lake Keokuk, 1936—Con.

CATCH: BY STATES

Species	Illinois		Iowa		Minnesota		Wisconsin		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
Bowfin	8, 500	$250	52, 100	$1, 524	7, 500	$225	50, 300	$1, 549	118, 400	$3, 548
Buffalofish	334, 700	16, 735	491, 100	24, 525	33, 500	1, 655	324, 200	17, 210	1, 183, 500	60, 125
Carp	623, 200	18, 816	1, 335, 900	41, 387	157, 300	4, 719	1, 267, 000	38, 010	3, 383, 400	102, 932
Catfish and bullheads	237, 700	23, 670	478, 800	47, 880	49, 500	4, 950	238, 800	23, 880	1, 004, 800	100, 380
Eels	900	90	1, 300	130	--------	------	---------	-------	2, 200	220
Mooneye	11, 500	230	15, 300	306	--------	------	24, 000	354	50, 800	890
Paddlefish or spoonbill cat	2, 100	210	800	80	--------	------	1, 800	180	4, 700	470
Pike or pickerel	---------	-------	39, 500	3, 825	--------	------	---------	-------	39, 500	3, 825
Sheepshead	167, 800	8, 490	241, 600	12, 005	25, 600	1, 220	206, 200	10, 310	641, 200	32, 025
Sturgeon, shovelnose	1, 000	100	19, 000	1, 895	--------	------	---------	-------	20, 000	1, 995
Sucker "mullet"	15, 700	312	42, 400	848	5, 000	100	49, 500	990	112, 600	2, 250
Turtles:										
Snapper	4, 700	94	28, 200	564	3, 300	66	8, 700	174	44, 900	898
Soft shell	4, 000	80	7, 900	158	4, 300	86	7, 700	154	23, 900	478
Total	1, 411, 800	69, 077	2, 753, 900	135, 127	286, 000	13, 021	2, 178, 200	92, 811	6, 629, 900	310, 036

FISHERIES OF ALASKA [13]

The commercial catch of fishery products in Alaska during 1936, exclusive of whales, amounted to 923,528,817 pounds, valued at $13,891,412, which is an increase of 45 percent in quantity and 60 percent in value as compared with the catch in 1935. Of the total catch in 1936, 726,853,292 pounds, valued at $11,856,541, consisted of salmon; 194,125,352 pounds, valued at $1,882,603, other fish; and 2,550,173 pounds, value at $152,268, shellfish. In addition, 385 whales were taken. These fisheries gave employment to 11,722 fishermen, 2,064 persons on transporting craft, and 16,597 persons in fishery wholesale and manufacturing industries—a total of 30,383 persons, which is an increase of 34 percent as compared with the number employed in 1935.

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[13] Statistics for the fisheries of Alaska are collected and compiled by the Alaska Division of this Bureau. A summary of these statistics appears in this section. For detailed figures the reader is referred to "Alaska Fishery and Fur-Seal Industries in 1936," by Ward T. Bower, appendix II to the Report of Commissioner of Fisheries for the fiscal year 1937.

Fisheries of Alaska, 1936

SUMMARY: BY DISTRICTS

Item	Southeast Alaska		Central Alaska		Western Alaska		Total	
	Number	*Value*	*Number*	*Value*	*Number*	*Value*	*Number*	*Value*
PERSONS ENGAGED								
In fishing	5,937		2,824		3,501		11,722	
In transporting	880		722		462		2,064	
In wholesale and manufacturing industries	7,153		5,118		4,326		16,597	
Total	13,430		8,664		8,289		30,383	
CRAFT EMPLOYED								
Vessels fishing	785		105		10		900	
Boats fishing	2,314		1,471		1,484		5,269	
Vessels transporting	197		151		90		438	
Scows, houseboats, pile drivers, etc	308		254		214		776	
Total	3,604		1,981		1,798		7,383	
CATCH	*Pounds*		*Pounds*		*Pounds*		*Pounds*	
Fish:								
Salmon	328,973,002	$4,840,414	248,541,961	$3,902,154	149,338,329	$3,113,973	726,853,292	$11,856,541
Other	89,201,206	1,356,760	101,105,863	506,752	3,818,283	19,091	194,125,352	1,882,603
Shellfish	1,299,069	68,743	1,251,104	83,525			2,550,173	152,268
Total	419,473,277	6,265,917	350,898,928	4,492,431	153,156,612	3,133,064	923,528,817	13,981,412
	Number		*Number*		*Number*		*Number*	
Whales			188		197		385	
WHOLESALE AND MANUFACTURING								
Establishments	104		101		44		249	
PRODUCTS AS PREPARED FOR MARKET	*Pounds*		*Pounds*		*Pounds*		*Pounds*	
Salmon	212,371,475	18,982,017	138,432,480	15,302,544	73,677,205	12,211,661	424,481,160	46,496,222
Herring	28,918,206	689,485	42,711,664	1,264,806	2,558,250	121,341	74,188,120	2,075,632
Halibut	13,719,340	958,304					13,719,340	958,304
Cod			249,331	11,881			249,331	11,881
Trout	42,683	3,400	3,680	436			46,363	3,836
Sablefish	789,266	50,448					789,266	50,448
Rockfishes	21,532	814					21,532	814
"Lingcod"	1,421	639					1,421	639
Clams			390,132	201,887			390,132	201,887
Shrimp	478,749	162,274					478,749	162,274
Crabs	235,095	72,577	238,150	86,297			473,245	158,874

Whale			3,724,000	146,198	5,089,875	188,263	8,813,875	334,461
Total	256,577,767	20,919,958	185,749,437	17,014,049	81,325,330	12,521,265	523,652,534	50,455,272

OPERATING UNITS: BY DISTRICTS

Item	Southeast Alaska	Central Alaska	Western Alaska	Total
	Number	*Number*	*Number*	*Number*
Fishermen	5,397	2,824	3,501	11,722
Vessels fishing:				
Steam		3	4	7
Net tonnage		207	340	547
Motor	785	102	6	893
Net tonnage	9,780	2,205	123	12,108
Boats fishing:				
Motor	931	338	49	1,318
Other	1,383	1,133	1,435	3,951
Apparatus:				
Traps	284	169		453
Purse seines	582	217	4	803
Yards	202,630	55,016	2,000	259,646
Haul seines	6	211		217
Yards	1,200	39,058		40,258
Apparatus—Continued.	*Number*	*Number*	*Number*	*Number*
Gill nets	359	1,522	2,353	4,244
Yards	52,660	171,380	371,618	595,688
Beam trawls	12			12
Wheels			297	297
Lines:				
Hand lines (cod fishery)		28		28
Trawl lines (cod fishery)		3		3
Troll lines (salmon fishery)	3,580			3,580
Skates of lines (halibut fishery)	2,358			2,358
Crab pots	2,574	780		3,354
Herring pounds	5	2		7
Herring pound seines	8	1		9

CATCH: BY DISTRICTS

[Estimated round weight and value to fishermen]

Item	Southeast Alaska		Central Alaska		Western Alaska		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
FISH								
Salmon:								
Blueback, red or sockeye	16,823,779	$486,900	76,240,108	$1,854,458	133,901,304	$3,024,343	226,965,191	$5,365,701
Chinook or king	13,621,260	334,977	2,226,800	59,255	2,033,780	14,581	17,881,840	408,813
Chum or keta	68,453,064	721,060	29,696,301	265,148	10,405,377	38,734	108,554,742	1,027,942
Humpback or pink	215,676,395	2,983,686	133,165,920	1,579,351	2,416,212	31,572	351,258,527	4,594,609
Silver or coho	14,398,504	310,791	7,212,832	143,912	581,656	4,743	22,192,992	459,476
Herring	68,630,959	343,155	100,379,252	501,896	3,818,283	19,091	172,828,494	864,142
Halibut [1]	19,380,486	958,304					19,380,486	958,304
Cod			722,011	4,420			722,011	4,420

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[1] Heretofore it was estimated that the shrinkage between the round weight of halibut and the eviscerated, heads-off weight, on which fishermen were paid, was 10 percent, but upon investigation it has been ascertained that the average shrinkage is 30 percent. The latter rate has been used, therefore, in determining the round weight of the halibut taken during 1936.

Fisheries of Alaska, 1936—Continued

CATCH: BY DISTRICTS—Continued

Item	Southeast Alaska		Central Alaska		Western Alaska		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
FISH—continued								
Trout:								
Dolly Varden	11,612	$848	4,600	$436			16,212	$1,284
Steelhead	41,741	2,552					41,741	2,552
Sablefish	1,101,861	50,448					1,101,861	50,448
Rockfishes	33,126	814					33,126	814
"Lingcod" (livers) [2]	1,421	639					1,421	639
Total	418,174,208	6,197,174	349,647,824	4,408,906	153,156,612	$3,133,064	920,978,644	13,739,144
SHELLFISH								
Crabs:								
Dungeness	431,580	36,166	470,840	43,148			902,420	79,314
King	1,680	122					1,680	122
Shrimp	865,809	32,455					865,809	32,455
Clams, razor			780,264	40,377			780,264	40,377
Total	1,299,069	68,743	1,251,104	83,525			2,550,173	152,268
Grand total	419,473,277	6,265,917	350,898,928	4,492,431	153,156,612	3,133,064	923,528,817	13,891,412

[2] Catch of "lingcod" other than livers was landed at Seattle, Wash.

NOTE.—In addition to the above statistics, 385 whales were taken in Alaska waters. The round weight and value to fishermen cannot be determined, but the products amounted to 8,813,875 pounds, valued at $334,461.

Industries related to the fisheries of Alaska, 1936

TRANSPORTING

Item	Southeast Alaska	Central Alaska	Western Alaska	Total
	Number	*Number*	*Number*	*Number*
Persons engaged	880	722	462	2,064
Vessels transporting:				
Steam		1	8	9
Net tonnage		3,758	17,793	21,551
Vessels transporting—Continued.				
Motor	197	150	82	429
Net tonnage	5,658	5,204	2,606	13,468
Scows, houseboats, pile drivers, etc	308	254	214	776

WHOLESALE AND MANUFACTURING

Item	Southeast Alaska	Central Alaska	Western Alaska	Total
	Number	*Number*	*Number*	*Number*
Persons engaged	7,153	5,118	4,326	16,597
Establishments:				
Handling fresh and frozen fish	54	4		58
Curing fish	40	58	23	121
Canning fish	52	55	24	131
Manufacturing byproducts	6	11	1	18
Total (exclusive of duplication)	104	101	44	249

PRODUCTS AS PREPARED FOR MARKET

Item	Southeast Alaska		Central Alaska		Western Alaska		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
FRESH								
Salmon (for food)	4,690,507	$369,442					4,690,507	$369,442
Salmon (for fox feed)			44,980	$430			44,980	430
Herring (for bait)	2,649,400	29,201	4,700	59			2,654,100	29,260
Halibut	6,957,336	443,762					6,957,336	443,762
Halibut livers	153,000	68,850					153,000	68,850
Trout	1,847	178	3,680	436			5,527	614
Sablefish livers	40,000	18,000					40,000	18,000
"Lingcod" livers	1,421	639					1,421	639
Crabs:								
Meat	61,452	23,706	29,110	8,051			90,562	31,757
Whole in shell	36,930	1,887	5,460	305			42,390	2,192
Shrimp:								
Meat	467,407	159,420					467,407	159,420
Whole in shell	5,676	728					5,676	728
Total	15,064,976	1,115,813	87,930	9,281			15,152,906	1,125,094
FROZEN								
Salmon (for food)	5,574,914	374,330					5,574,914	374,330
Salmon (for bait)	439,238	4,535					439,238	4,535
Herring (for bait)	3,057,805	21,940					3,057,805	21,940
Halibut	6,609,004	445,692					6,609,004	445,692
Trout	40,836	3,222					40,836	3,222
Sablefish	614,536	27,431					614,536	27,431
Rockfishes	21,532	814					21,532	814
Shrimp	5,666	2,126					5,666	2,126
Total	16,363,531	880,090					16,363,531	880,090

Industries related to the fisheries of Alaska, 1936—Continued

PRODUCTS AS PREPARED FOR MARKET—Continued

Item	Southeast Alaska		Central Alaska		Western Alaska		Total	
	Pounds	*Value*	*Pounds*	*Value*	*Pounds*	*Value*	*Pounds*	*Value*
CURED								
Salmon:								
Mild cured	4, 289, 600	$774. 364			193, 600	$24, 200	4, 483, 200	$798, 564
Pickled	104, 300	8, 570	314, 450	$32, 529	454, 165	55, 411	872, 915	96, 510
Dried and dry salted	20, 500	3, 075			1, 451, 600	58, 640	1, 472, 100	61, 715
Herring:								
Pickled (for bait)	586, 200	6, 000					586, 200	6, 000
Pickled (for food):								
Scotch cure	759, 250	36, 374	8, 162, 525	392, 093	2, 491, 450	109, 744	11, 413, 225	538, 211
Norwegian cure			2, 125	92			2, 125	92
Roused					66, 800	11, 597	66, 800	11, 597
Spiced	1, 500	125					1, 500	125
Cod:								
Dry salted			158, 607	7, 711			158, 607	7, 711
Pickled			80, 769	2, 821			80, 769	2, 821
Stockfish			9, 355	1, 304			9, 355	1, 304
Tongues			600	45			600	45
Sablefish, pickled	134, 730	5, 017					134, 730	5, 017
Total	5, 896, 080	833, 525	8, 728. 431	436, 595	4, 657, 615	259, 592	19, 282, 126	1, 529, 712
CANNED								
Salmon:								
Blueback, red, or sockeye	10, 464, 336	1, 906, 414	41, 127, 792	7, 256, 658	68, 529, 888	11, 812, 802	120, 122, 016	20, 975, 874
Chinook or king	984, 240	154, 486	1, 299, 504	228, 550	206, 688	29, 508	2, 490, 432	412, 544
Chum or keta	37, 360, 272	2, 802, 779	14, 217, 024	1, 038, 869	1, 274, 688	97, 245	52, 851, 984	3, 938, 893
Humpback or pink	140, 406, 912	11, 667, 495	76, 972, 032	6, 187, 456	1, 491, 168	123, 303	218, 870, 112	17, 978, 254
Silver or coho	6, 466, 656	886, 527	4, 128, 336	548, 989	75, 408	10, 552	10, 670, 400	1, 446, 068
Fish pudding (salmon)			3, 600	500			3, 600	500
Clams			390, 132	201, 887			390, 132	201, 887
Crabs	136, 713	46, 984	203, 580	77, 941			340, 293	124, 925
Total	195, 819, 129	17, 464, 685	138, 342, 000	15, 540, 850	71, 577, 840	12, 073, 410	405, 738, 969	45, 078, 945
BYPRODUCTS								
Fertilizer:								
Salmon	1, 300, 000	20, 000	254, 000	4, 579			1, 554, 000	24, 579
Whale			1, 000, 000	15, 804	1, 368, 000	22, 080	2, 368, 000	37, 884
Meal, herring	11, 628, 749	223, 165	16, 756, 319	298, 849			28, 385, 068	522, 014
Oil:								
Salmon	270, 000	10, 000	70, 762	3, 984			340, 762	13, 984
Herring	10, 235, 302	372, 680	17, 785, 995	573, 713			28, 021, 297	946, 393
Whale			2, 396, 625	119, 831	2, 599, 125	129, 956	4, 995, 750	249, 787

Sperm			327, 375	10, 563	1, 122, 750	36, 227	1, 450, 125	46, 790
Total	23, 434, 051	625, 845	38, 591, 076	1, 027, 323	5, 089, 875	188, 263	67, 115, 002	1, 841, 431
Grand total	256, 577, 767	20, 919, 958	185, 749, 437	17, 014, 049	81, 325, 330	12, 521, 265	523, 652, 534	50, 455, 272

NOTE.—The output of fresh and frozen halibut includes all fares of the Alaska fleet, some of which were landed at other than Alaska ports. The amount of livers landed by the Alaska fleet was not reported, and the quantity shown herein is the estimated amount landed in Alaska. The total landings of halibut in Alaska in 1936, other than livers, amounted to 8,658,774 pounds, valued at $507,484 (including 4,000 pounds, valued at $240, landed by Canadian vessels).

Supplementary table showing the pack of canned products in "standard cases" [1]

Item	Southeast Alaska		Central Alaska		Western Alaska		Total	
	Cases	*Value*	*Cases*	*Value*	*Cases*	*Value*	*Cases*	*Value*
Salmon:								
Blueback, red, or sockeye	218, 007	$1, 906, 414	856, 829	$7, 256, 658	1, 427, 766	$11, 812, 802	2, 502, 542	$20, 975, 874
Chinook or king	20, 505	154, 486	27, 073	228, 550	4, 306	29, 508	51, 884	412, 544
Chum or keta	778, 339	2, 802, 779	296, 188	1, 038, 869	26, 556	97, 245	1, 101, 083	3, 938, 893
Humpback or pink	2, 925, 144	11, 667, 495	1, 603, 584	6, 187, 456	31, 066	123, 303	4, 559, 794	17, 978, 254
Silver or coho	131, 722	886, 527	86, 007	548, 989	1, 571	10, 552	222, 300	1, 446, 068
Fish pudding (salmon)			75	500			75	500
Clams			26, 009	201, 887			26, 009	201, 887
Crabs	2, 848	46, 984	4, 241	77, 941			7, 089	124, 925
Total	4, 079, 565	17, 464, 685	2, 900, 006	15, 540, 850	1, 491, 205	12, 073, 410	8, 470, 776	45, 078, 945

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[1] The pack of salmon, fish pudding, and crabs has been converted to "standard cases" of 48 1-pound cans, and clams to "standard cases" of 48 No. 1 5-ounce cans.

Supplementary table showing the output of byproducts in tons and gallons

Item	Southeast Alaska		Central Alaska		Western Alaska		Total	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
Fertilizer:								
Salmon ..... tons	650	$20, 000	127	$4, 579			777	$24, 579
Whale ..... do			500	15, 804	684	$22, 080	1, 184	37, 884
Meal, herring ..... do	5, 814	223, 165	8, 378	298, 849			14, 192	522, 014
Oil:								
Salmon ..... gallons	36, 000	10, 000	9, 435	3, 984			45, 435	13, 984
Herring ..... do	1, 364, 707	372, 680	2, 371, 466	573, 713			3, 736, 173	946, 393
Whale ..... do			319, 550	119, 831	346, 550	129, 956	666, 100	249, 787
Sperm ..... do			43, 650	10, 563	149, 700	36, 227	193, 350	46, 790
Total		625, 845		1, 027, 323		188, 263		1, 841, 431

STATISTICAL SURVEY PROCEDURE

In order that those who use the statistical data contained in this and previous reports of the Division of Fishery Industries may be informed as to the source of the figures and methods for their collection, it has been deemed advisable to outline, in considerable detail, the statistical survey procedure followed by the Division. This procedure has been developed over a period of years, and changes in method have been made at times where such changes have appeared to work toward general improvement. While the surveys in the several sections are not made in the same manner, owing to varying facilities and records in different States, an attempt has been made to make the data collected by various methods in the producing areas comparable with respect to the same year as well as over a period of years. Throughout the entire plan it has been the intention to coordinate State and Federal fishery statistical work so that there will be as little duplication of effort as possible. The procedure will be discussed under two main heads—"Sectional surveys" and "Local and special surveys."

SECTIONAL SURVEYS

Statistical surveys of the fisheries and fishery industries of the various sections of the United States occupy by far the greatest part of the time of the statistical personnel of the Division. It is in the course of these surveys that the statistical and marketing agents visit the individual fishing localities of the various States to collect statistics of the volume of the catch of fish and its value, employment in fishing, quantity of fishing gear, number and classification of fishing and transporting craft, employment in wholesale and manufacturing establishments, and the volume and value of manufactured fishery products and byproducts. The various phases of these surveys are discussed in detail in the sections following.

History.—The first comprehensive statistical survey of the fisheries and fishery industries of the United States was made for the year 1880 by George Brown Goode, Assistant Director of the U. S. National Museum, and associates, with the cooperation of the Commissioner of Fisheries and the Superintendent of the Tenth Census. Data for specific fisheries, or restricted sections for years prior to 1880, were also collected in this early survey and recorded in Mr. Goode's reports. The survey for 1880, however, did not include the Mississippi River and tributaries. Periodic general surveys of a limited number of States or limited areas of the United States were made for various of the intervening years between 1880 and 1908 and from 1909 to 1928. In 1908 a survey of the entire United States was made. The next general survey of the entire United States was not made until 1931, although complete data for all sections, excluding the Mississippi River and tributaries, were collected for 1929 and 1930. Complete data on the catch and operating units for all sections, excluding the Mississippi River and its tributaries, were collected for 1932. In the latter survey, however, lack of sufficient funds prohibited collection of data on wholesale and manufacturing firms except those data collected as a part of the canned fishery products and byproducts surveys. Complete general canvasses were made of the Chesapeake and Pacific States for the years from 1933 to 1936, inclusive, the New England and Middle Atlantic States for 1933 and 1935, and the South Atlantic, Gulf, and Lake States for 1934 and 1936. Complete data on the catch of the fisheries of the Lake States were also collected for 1933 and 1935.

Following is a summary indicating the years for which statistics were collected on the fisheries and fishery industries in the various sections. Figures for the more recent years are available for free distribution from the Bureau in bulletin form, but figures for the earlier years are available only in the various printed reports of the Bureau. These reports are available for reference in the Bureau's library and at many public libraries.

In the New England States statistics on the catch of the marine fisheries, and those conducted in the coastal rivers and bays of these States, were collected for the years 1880, 1887, 1888, 1889, 1898, 1902, 1905, 1908, 1919, 1924, 1928, 1929, 1930, 1931, 1932, 1933, and 1935. For most of these years data on operating units and wholesale and manufacturing trade also were collected. In addition to the above, a partial statistical survey was made for the entire section in 1892; a partial survey of the fisheries in Maine, New Hampshire, and Massachusetts for the fiscal year 1897; the lobster fishery for 1900 and 1913; the oyster fishery for 1910; the shad and alewife fisheries for 1896; the menhaden industry for 1912; the fisheries of Massachusetts for 1879; and the fisheries of Connecticut for 1925 and 1926.

Statistics on the catch of the marine fisheries and those conducted in the coastal rivers and bays of the Middle Atlantic States were collected for the years 1880, 1887, 1888, 1889, 1890, 1891, 1897, 1898, 1901, 1904, 1908, 1921, 1926, 1929, 1930, 1931, 1932, 1933, and 1935. Data on operating units and wholesale and manufacturing trade also were collected for most of these years. In addition to these a statistical survey was made of the coastal fisheries of these States in 1915; catch in all States except New York, in 1892; the shad and alewife fisheries in 1896; the shad fisheries of the Delaware River in 1910; the shad fisheries of the Chesapeake Bay and tributaries in 1909; the menhaden industry in 1912; the lobster fisheries in 1900 and 1913; and the oyster fishery in 1911. The years for which statistics are available on the shad fishery of the Hudson River are given in the section entitled "Shad and alewife fisheries."

In the Chesapeake Bay States statistics on the catch of the marine fisheries and those conducted in coastal rivers and bays of these States were collected for the years 1880, 1887, 1888, 1890, 1891, 1897, 1901, 1904, 1908, 1920, 1925, and for all the years from 1929 to 1936, inclusive. Data on operating units and wholesale and manufacturing trade also were collected for most of these years. In addition to the above, a statistical survey was made of the crab fishery for 1915; the oyster fishery and menhaden industry for 1912; and the shad and alewife fisheries for 1896, 1909, and 1915. The years for which statistics of the shad and alewife fisheries of the Potomac River are available are given in the section entitled "Shad and alewife fisheries."

In the South Atlantic and Gulf States statistics on the catch of the marine fisheries and those conducted in the coastal rivers and bays of these States were collected for the years 1880, 1888, 1889, 1890, 1897 1902, 1908, 1918, 1923, 1927, 1928, 1929, 1930, 1931, 1932, 1934, and 1936. Data on operating units and wholesale and manufacturing trade also were collected for most of these years. In addition to the above, a statistical survey was made of the fisheries of these States, excluding Florida and Alabama, for 1887; the shad fishery of the South Atlantic States for 1910; the shad and alewife fisheries of the South Atlantic States for 1896; the sturgeon fishery of Florida for 1900; the menhaden industry of the South Atlantic States for 1912; the shrimp fishery for 1916; the oyster fishery of the South Atlantic States for 1910; and the oyster fishery of the Gulf States for 1911.

In the Pacific Coast States statistics on the catch of the marine fisheries and those conducted in the coastal rivers and bays of these States were collected for the years 1880, 1888, 1892, 1895, 1899, 1904, 1908, 1915, and for all the years from 1922 to 1936, inclusive. These surveys have usually included data on operating units and wholesale and manufacturing trade. In addition to the above, statistics were obtained on the fisheries of California from 1918 to 1921, inclusive, and for the oyster fishery in 1912.

Statistics on the catch of the fisheries of the Great Lakes were collected for the years 1880, 1885, 1890, 1893, 1899, 1903, 1908, and for all the years from 1913 to 1936, inclusive. Statistics of the operating units and of the wholesale and manufacturing trade were collected for most of the years when canvasses were made from 1880 to 1908, and in 1917 and 1922 as well as in most of the years from 1926 to 1936, inclusive. In addition to the above a survey was made of the fisheries of Lake Ontario and of certain fisheries in other lakes for the year 1897.

Statistics of the catch of the fisheries of the Mississippi River and its tributaries were collected for the years 1894, 1899, 1903, 1908, 1922, and 1931. In addition, figures have been obtained of the fisheries of Lakes Pepin and Keokuk for the years 1914 and 1917 and the years from 1927 to 1936, inclusive, and of the fisheries of the Mississippi River between Lakes Pepin and Keokuk for the years 1929 to 1936, inclusive.

Statistics also were collected on the fisheries of certain interior waters, other than the fisheries of the Great Lakes and the Mississippi River and its tributaries, for the years 1894, 1895, 1900, and 1902.

Statistical agents.—The statistics contained in this volume have been collected by a corps of trained statistical and marketing agents which comprises a part of the permanent staff of the Division of Fishery Industries of the Bureau. Most of these men have been with the Bureau for a period of 5 years or more. In the main they are college graduates and were recruited through civil-service examination. While in college, most of the men pursued biological or technical courses, largely in fishery work, which has especially suited them for coping with the many biological and technical aspects encountered in canvassing the fisheries. This training has been especially helpful in identification of the species which, because of the many local names applied to a particular species, causes considerable confusion.

Period covered.—In conducting the fishery statistical surveys, agents are dispatched to the districts to be surveyed as early in the calendar year as they can be spared from the tabulation and preparation for publication of their previous season's work. They collect statistics of fishery operations for the year preceding that in which they are working; and, since their field work occupies the greater part of the year, it is usually at least a year from the end of the calendar year for which they are collecting data until the figures are published. Most of the figures are collected for the calendar year. Where there are variations from this general practice, explanatory notes appear in the tables. Prior to 1930, statistics on the catch of oysters in the Atlantic and Gulf States were collected for the oyster season; that is, from September to April, inclusive. Beginning with 1930 and down to the present, they have been collected on the basis of the calendar year.

Scope.—The scope of the coastal statistical surveys includes canvasses of the commercial fisheries of the oceans and bays and of the coastal rivers as far inland as commercial fishing is important. This usually coincides with the range of commercial fishing for anadromous species. Statistics of the fisheries of the Mississippi River cover canvasses of the fisheries of the Mississippi River proper as well as all of its tributaries wherein commercial fishing for either fish, crustaceans, or mollusks is prosecuted. Statistics of the fisheries of the Great Lakes cover canvasses of the fisheries prosecuted in the Lakes proper, adjacent bays, and the international lakes of northern Minnesota, as well as rivers which sustain a commercial fishery having outlets into these waters. Surveys for statistics of the wholesale and manufacturing fishery industries cover such plants located in the coastal, river, and lake areas adjacent to the waters mentioned above.

Methods of collection.—Several methods for the collection of fishery statistics are employed, each of which has been carefully studied to obtain the best results with the available personnel and funds. In most instances the agents obtain lists of the names of fishing vessels, names or numbers of motorboats, and names of owners of these craft from local customs officials. Also it often is possible to obtain the names of licensed commercial fishermen and occasionally some statistics on the catch from several of the State fishery agencies; from other State, county, or city agencies; or from private organizations.

With such preliminary records as are available for their guidance the agents then visit each fishing community in their field unless their preliminary records are so complete that personal visits in some areas may be eliminated. While it is impossible for the few agents available for this work to interview each fisherman in a given locality, the more important ones are visited, and a sufficient number of those of lesser importance are interviewed to obtain reliable information on their production. In practice virtually all wholesale firms are visited, as well as captains of fishing vessels (those of 5 net tons or over), and also most of the more important inshore fishermen.

In the Great Lakes and Pacific Coast States such exceptional cooperation has been obtained in recent years from the State fishery agencies in the collection of statistics that only fragmentary surveys need be made by the Bureau's agents to obtain the necessary data. Also the State fishery agencies in Delaware, Maryland, and Virginia recently have developed very complete statistical systems which greatly facilitate the Bureau's canvasses in these States.

As regards the fisheries of the Great Lakes and international lakes of northern Minnesota the Bureau obtains most of the catch statistics and usually the value of the catch direct from the records of the State fishery agency. To obtain data on the number of fishermen, boats, vessels, and gear the Bureau conducts such personal surveys among the fishermen as may be necessary to supplement the State records.

Bureau agents are stationed at Seattle, Wash., and Terminal Island, Calif., who survey the fisheries of the Pacific Coast States. As a rule they obtain figures on the volume of the catch from the records of the several State fishery agencies. In most cases the value of the catch is derived from dealers' records and sometimes from estimates of prices. In Washington and Oregon the offshore fisheries are surveyed separately by the Bureau's agent to obtain data on the number of operating units, catch, and value of the catch. Statistics of the wholesale fishery industry for this section are obtained largely by personal interviews of the agents.

In the administration of the Alaska fisheries the Bureau obtains sworn statements concerning their activities from those prosecuting the fisheries in this area. These statements are compiled by the Alaska Division of this Bureau.

Statistics of the volume of the catch of fish of the Pacific Coast and Great Lakes States are usually shown in weights as landed, which may be in the round or dressed condition. Statistics on the volume of the catch of fish taken in the remainder of the United States are shown in round weight.

The figures in the tables for shellfish represent the weight of the meats in the case of univalve and bivalve mollusks and gastropods, and the round weight of crustaceans and such mollusks as squid and octopus.

Shore and vessel fisheries.—In general, statistics of the shore fisheries, as collected by the agents, include data on the number of casual and regular fishermen; number of motor and other fishing boats and accessory boats; kind and quantity of gear used, and the volume, value, and method of capture of each species caught by boats (for our purpose craft of less than 5 net tons capacity are called "boats") for each locality or group of localities. This method is not followed in some sections where the availability of data collected by the State fishery agencies obviates the necessity of detailed locality surveys.

Statistics of the vessel fisheries include data on the number of the crew, rig of vessels, net tonnage, kind and quantity of gear used, accessory boats carried, and volume, value, and method of capture of each species caught by each vessel (for our purpose craft of 5 net tons' capacity or more are called "vessels"). As in the shore fisheries, the availability of figures collected by State fishery agencies may eliminate the necessity of our agents collecting these data for each vessel.

All persons engaged in commercial fishing operations are included as fishermen. For our purpose these have been divided into "regular" and "casual" fishermen. Regular fishermen are those who receive more than one-half of their annual income from fishing; and casual fishermen are those whose principal business is something other than fishing, and who receive less than one-half of their annual compensation from fishing.

The catch of fish is credited to the principal port of arrival and departure of the craft rather than its point of ownership, registration, documentation, or its port of landing. This accounts for catches of fish being shown in areas where they are not common, since fishing vessels frequently fish in areas far from their principal fishing port.

Wholesale and manufacturing trade.—All persons or firms engaged in the wholesale buying and selling of fishery products or who produce manufactured fishery products are surveyed under this title. Where the business of fishing and wholesaling or manufacturing is combined, that part of the business devoted to either of the latter two phases is included in the wholesale and manufacturing survey and the part devoted to fishing is included in the shore or vessel fisheries. If a wholesale business is conducted with no manufacturing and the business is so small that the full time of one man over the whole year or season is not required, it is then disregarded as a wholesale business. If commodities other than fishery products are handled, the persons engaged, and salaries and wages paid, are prorated; and only that part concerned with fishery products is included. If such a firm required less than the full time of one man over the whole year or season and if it does not manufacture, it is not included in the canvass. Retail firms that manufacture or whose wholesale business exceeds the retail part are included. Persons or firms engaged in the motortrucking of fishery products are included as wholesalers if they are engaged in wholesale buying and selling.

Buyers for a central firm are not canvassed as wholesale dealers unless they ship direct to the firm's customers from the buying point.

Fishermen or fishing concerns, except manufacturers, who do not buy fishery products are not included under this heading except that oyster-shucking firms are included provided shuckers are employed, and irrespective of whether all or part of the oysters used are taken from the firms' privately owned beds.

Manufacturing concerns include those which prepare packaged fishery products; salted, spiced, smoked, dried, or otherwise cured fishery products; canned fishery products; or fishery byproducts.

Fishermen who manufacture are surveyed to obtain the number of persons so employed and the volume and value of the products prepared.

In collecting statistics of manufacturing firms, the agents obtain data on the production for each plant in producing areas of products as marketed by the plant. Such products are usually "final" and in form for consumption; however, the products may be "intermediate" and require further processing before reaching the consumer markets. An outstanding example of an intermediate product is green-salted groundfish which almost invariably is further processed before final marketing. In reviewing the statistics of manufactured products it should be observed that intermediate products are not shown where they are prepared to the final stage in the original plant. An exception to this rule, however, is in the case of the production of mild-cured salmon, which, on account of its importance, is shown in its entirety, whether further processed in the producing plant or not. In this connection it should also be stated that several of the byproducts for which statistics are shown may be intermediate, and the plants producing the final products are not surveyed by this Bureau. Outstanding among such products are marine-animal oils, scrap, and meal.

Statistics of persons engaged in wholesale and manufacturing establishments are reported in three groups: Proprietors, salaried employees, and wage earners.

Proprietors represent those persons who devote their time to the conduct of the enterprise and receive their compensation in the form of profits. Managers of branch houses are not classified as proprietors.

Salaried employees usually include those persons paid by the week or month, while wage earners usually consist of those paid on a per diem or piece-work basis. This, however, is not true in all cases, since the distinction between these two classes depends primarily on the character of the work done rather than the unit of time employed for calculating rates of pay. In general, office employees are classified as salaried employees. Other employees, including plant workmen, are classed as wage earners. Plant foremen or superintendents are classified as salaried employees unless they are principally engaged in manual labor; in which case they are classified as wage earners. Active officers of corporations are classified as salaried employees. Statistics of wage earners are shown in two forms: The average number employed during the operating season; and the average number employed during the year (the monthly average for the year).

Transporting trade.—Statistics are obtained on the number of the crew and number of boats and vessels engaged in transporting fishery products from the fishing grounds to port or from port to port. However, if a craft is engaged in catching fish at any time of the year it is included as a fishing craft rather than as a transporter.

Publication of data.—Statistics of employment in the fisheries, craft and gear engaged, catch and value of catch, and certain data on industries related to the fisheries are summarized and published in bulletin form as soon as possible after completion of each survey. Later the figures in more detail are included in the annual reports of the Division.

LOCAL AND SPECIAL SURVEYS

Landings at certain important United States ports.—Statistics of the landings of aquatic products at the principal New England ports (Boston and Gloucester, Mass., and Portland, Maine) are obtained in a similar manner. An agent is permanently stationed at Boston, Mass., and another is assigned to the ports of Gloucester, Mass., and Portland, Maine. Their duties include the obtaining of figures daily on the quantity of fish landed by each fishing vessel, the value of such fish landed, information concerning the date of departure and arrival of the vessel, and they also indicate the grounds from which the fish were taken and gear used in their capture. These data are forwarded to the Bureau, where compilations are made. Products of American fisheries received duty free at Boston and Gloucester, Mass., and Portland, Maine, from the treaty coasts of Newfoundland, Magdalen Islands, and Labrador are included in the landings at these ports; however, they are not included in the catch in sectional fishery surveys of the New England States unless they represent a catch by United States vessels. Statistics of these landings are released monthly and annually in bulletin form and detailed data are published in the annual reports of this Division. Data on the landings at Boston, and Gloucester, Mass., have been collected annually since 1893, and those for Portland, Maine, since June 1915. Some data are available for Boston and Gloucester prior to 1893.

Statistics of the landings of fish at Seattle, Wash., are collected by the Bureau's agent in that city. Landings are classified as those made by United States fishing vessels and those received by Seattle wholesale dealers. The landings credited to United States fishing vessels are made by vessels operating distinctly as primary fishing units, usually in the offshore fisheries, while those credited as received by wholesale dealers are usually products of the shore fisheries collected mainly from points in Puget Sound and do not include fish received from Alaska or Canada, or landings made by the halibut fleet. Statistics of these landings at Seattle are released monthly and annually in bulletin form and detailed data are published in the annual reports of this Division. Statistics of the landings by fishing vessels at Seattle have been collected since June 1915 and certain data on products received by Seattle wholesale dealers since December 1915.

Statistics of the fishery products handled at the municipal wharf, Washington, D. C., are reported to the Bureau by agents of the Health Department in Washington. They are not published in bulletin form, but a summary of the year's activities is published in the annual reports of the Division. Data on products handled at the municipal wharf are available since 1921.

Atlantic mackerel fishery.—Statistics on the catch by the Atlantic mackerel fleet are obtained by combining the figures of mackerel landed at Boston and Gloucester, Mass., and Portland, Maine, with those obtained by Bureau agents, who in recent years have been stationed at other Atlantic ports where mackerel are landed. These agents obtain data on the volume of mackerel landed in a manner similar to that used to obtain figures on the landings by fishing vessels at the three New England ports. The figures include only the catches made by purse seine and drift gill net craft and are not complete for craft of under 5 net tons' capacity using this type of gear. Statistics of this fishery appear only in the annual reports of this Division, although the landings at the principal New England ports appear in the monthly and annual bulletins published for those ports. Statistics of this fishery are available from 1905 to 1936, inclusive.

Shad and alewife fisheries.—Owing to the importance of the Hudson and Potomac Rivers in the production of shad, surveys for statistics of the catch, value of the catch, and operating units are made annually. On the Potomac River similar statistics also are obtained for the alewife fishery. Much of the data required for these surveys are available from the State fishery agencies.

Statistics of the shad and alewife fisheries are not published separately in bulletin form, but a summary of the year's activities is published in the annual reports of the Division.

Statistics of the shad fishery of the Hudson River are available for 1896, 1897, 1898, 1901, 1904, 1910, and from 1915 to 1936, inclusive, while data for the shad fishery of the Potomac River are available for 1896, 1901, 1904, 1909, 1915, and from 1919 to 1936, inclusive. Statistics of the alewife fishery of the Potomac River are available for 1896, 1909, 1915, and from 1919 to 1936, inclusive.

Pacific halibut fishery.—Statistics of the Pacific halibut fishery are obtained by the Bureau's agent in Seattle, aided by Bureau representatives in Alaska and the International Fisheries Commission. The fleet classification has been arbitrarily applied by including in the "Washington fleet" all United States and Alaska vessels that land more than half of their catch in that State. All other United States and Alaska vessels of the halibut fleet are included in the "Alaska fleet." Monthly and annual statistical bulletins are available on this fishery, being published along with the statistics of the landings of fishery products at Seattle, Wash., and detailed statistics are published in the annual reports of the Division. Statistics of the landings of halibut at Pacific coast ports have been collected since 1925.

Canned fishery products and byproducts.—Beginning in 1921, the Bureau has made annual surveys for statistics of the canned fishery products and byproducts industries of every section. These are begun the first week in January of each year for statistics of the production in the preceding year. The surveys usually occupy 6 to 9 weeks' time. During this period the Bureau obtains by mail, so far as possible, the production of canned fishery products or byproducts from each plant in the United States engaged in this business. Where it is impossible to obtain reports by mail the report is obtained by personal visit by the Bureau's agents. They obtain statistics of the production and value of the production for each commodity. Statistics of the canned fishery products and byproducts produced in Alaska are received on the same statements obtained by the Bureau that include statistics of general fishery operations.

An annual statistical bulletin is issued on this trade, and detailed statistics of the output are published in the annual reports of the Division. In addition to the data obtained on the output of these products annually since 1921, data also usually were obtained prior to 1921 for the years the various sections were surveyed.

The value shown for canned products constitutes the gross amount received by the packer at the production point, no deductions being made for commission or expenses.

Packaged-fish trade.—Complete statistics of the annual production and value of fish packaged in the United States are obtained as a part of the survey for the statistics of the canned fishery products and byproducts industries. These statistics are released in bulletin form annually and detailed statistics are published in the annual reports of the Division. Statistics of the production of packaged fish are available for 1926 and the years from 1928 to 1936, inclusive.

Cold-storage holdings of fish.—An arrangement has been made with the Bureau of Agricultural Economics, Department of Agriculture, whereby statistics of the cold-storage holdings of the various species of fish, by sections of the United States are furnished to this Bureau monthly. Included with statistics of the holdings are statements of the quantity of the various species of fish frozen and also the holdings of certain cured fish. Bulletins showing these statistics are issued monthly as well as annually, and detailed statistics are published in the annual reports of this Division. Statistics of cold-storage holdings of fishery products have been published since 1917 and data on quantities of fish frozen, for the years from 1920 to 1925, inclusive, and from 1928 to 1936, inclusive.

Sponge market, Tarpon Springs.—A large proportion of the total output of sponges in Florida is handled through the sponge exchange at Tarpon Springs. In view of this, the Bureau has obtained from a representative of the exchange annual statistics of the quantity and value of the sponges, by variety classification, handled through it annually. Statistics of the quantity of sponges handled through the exchange are not published in bulletin form, but a summary of the year's activities is published in the annual reports of this Division.

Statistics of the transactions on the sponge exchange are available for 1913, 1914, and for the years from 1917 to 1936, inclusive.

Foreign fishery trade.—Statistics of the foreign fishery trade are obtained from compilations made by the Bureau of Foreign and Domestic Commerce, Department of Commerce. Statistics of all known fishery products imported or exported have been assembled in one table and published annually in the reports of the Division in recent years. For earlier years they are available in the reports of the Bureau of Foreign and Domestic Commerce, the Bureau of Statistics, the Department of Commerce and Labor, or the Treasury Department.

PRACTICES AND TERMS

Certain practices and terms of importance used in the compilation of fishery statistics are explained below.

Days absent.—In computing "days absent" for vessels landing fares at the various ports, the day of departure and the day of arrival are included; thus a vessel leaving port on the 8th of the month and returning on the 15th of the month will be shown as being absent 8 days.

Operating units.—Operating units as referred to in this document include persons engaged in the fisheries, and fishing craft and gear employed.

Vessel.—The term "vessel" refers to a craft having a capacity of 5 net tons or more.

Boat.—The term "boat" refers to a craft having a capacity of less than 5 net tons.

Incidental catch.—The term "incidental catch" refers to the catch of certain species by a type of gear which ordinarily does not capture such species.

Percentages.—Percentages are usually shown as whole numbers. Fractions of percents are dropped if less than five-tenths, and the percentage is raised to the next higher integer if the fraction is greater than five-tenths. If the fraction is exactly five-tenths, the integer is raised or lowered to make it an even number.

Converting.—Many of the figures shown in the statistical tables published herewith have been converted to thousands of pounds or dollars. In making these conversions the largest number from which a group of items is computed is raised or lowered to the nearest thousands place. If the number ends in an even 500, the thousands integer is raised or lowered to make it an even number. The individual items are changed to conform to the total thus obtained.

Confidential data.—The statistical data collected by the Division are confidential and are not released except by approval of the Washington office. Statistics of production of wholesale and manufacturing firms are published only for commodities or geographical areas where the production of three or more concerns may be grouped. Every effort is made to publish only those figures which will not reveal individual enterprise.

CONVERSION FACTORS

It is the policy of the Bureau to show the detailed catch figures of all products in pounds for the sake of uniformity and for purposes of comparison. Following such a policy presents certain problems. In the case of fish there is little difficulty since in very rare instances are such products reported in units of measure other than pounds. For shellfish, however, the units of measure may be bushels, sacks, barrels, or thousands of shellfish, gallons of meats, etc. These many units make standardization difficult, but when coupled with the wide variation in the requirements or definition of some of these units in the various States the problem becomes even more complex.

All bivalve mollusks are reported in pounds of meats in the detailed catch tables presented in this report. In addition, there are included supplementary tables for most of the sections, which give data on the production in bushels. These supplementary tables also give the production of certain other shellfish, such as crabs, in number.

Oysters.—Probably the greatest problem in presentation of fishery statistics in uniform units of measure is in the case of oysters. Usually the production of oysters on the Atlantic and Gulf coasts is reported to Bureau agents in bushels; and prior to the data obtained for the year 1930 conversion from bushels to pounds of meats was effected on the basis of a uniform yield of 7 pounds of meats to the bushel. However, more recent investigations have shown considerable variation from this figure. There follows a table which gives the results of these studies of the measures used for oysters in the various States and of the average yields per bushel. This table presents the factors that have been used in the oyster statistics given in this report.

Measures and yields of oysters [1]

State	Capacity of State bushel	Variation from United States standard bushel		Market oysters	
				Yield per State bushel	Yield per standard bushel
	Cubic inches	*Cubic inches*	*Percent*	*Pounds of meats*	*Pounds of meats*
Massachusetts	2, 150. 4			6. 57	6. 57
Rhode Island	2, 150. 4			7. 31	7. 31
Connecticut	2, 150. 4			8. 00	8. 00
New York	2, 150. 4			7. 00	7. 00
New Jersey	2, 257. 3	+106. 9	+5. 0	8. 91	8. 49
Delaware	2, 257. 3	+106. 9	+5. 0	7. 00	6. 67
Maryland	2, 801. 5	+651. 1	+30. 3	6. 15	4. 72
Virginia	3, 003. 4	+853. 0	+39. 7	5. 42	3. 88
North Carolina	2, 801. 9	+651. 5	+30. 3	4. 96	3. 81
South Carolina	4, 071. 5	+1, 921. 1	+89. 3	4. 64	2. 45
Georgia	5, 343. 9	+3, 193. 5	+148. 5	6. 01	2. 42
Florida	3, 214. 1	+1, 063. 7	+49. 4	4. 18	2. 80
Alabama	2, 826. 2	+675. 8	+31. 4	4. 11	3. 13
Mississippi	2, 826. 2	+675. 8	+31. 4	3. 59	2. 73
Louisiana	2, 148. 4	−2. 0	−0. 1	3. 77	3. 77
Texas	2, 700. 0	+549. 6	+25. 6	4. 92	3. 92

[1] Data on yield for the Chesapeake, and the South Atlantic and Gulf States are for 1936. Other data are for 1935.

Other mollusks.—The following table shows the conversion factors for various mollusks, other than oysters, used in this report.

Average yields of certain mollusks in pounds of meats per bushel [1]

State	Clams, hard		Clams, soft		Clams, surf	Clams, razor	Mussels, sea	Periwinkles and cockles	Scallops, bay	Scallops, sea	Conchs
	Public	Private	Public	Private							
Maine	11		15				12	15		6	
New Hampshire			15								
Massachusetts	11.01	11	13.64		17	31.68		18	6.13	6	
Rhode Island	16	16	20					18	7	7	
Connecticut	10	10	14.94						5.75		
New York	8	8	15	16	12		10		5	6	18
New Jersey	9.76	9.76	20		12.5		13			5.88	
Delaware	10	10					13				
Maryland	8										
Virginia	8.02	8					12				
North Carolina	8								6		
South Carolina	8										
Florida	8								5		

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[1] Data for the Chesapeake, and South Atlantic and Gulf States are for 1936. Other data are for 1935.

Other conversion factors.—The principal other conversion factors that have been used in this report are as follows:

Alewives	To convert number of fish to weight in pounds, multiply by 0.4.
Cod, large, salted	To convert to fresh-gutted weight, multiply by 1.90.
Cod, market, salted	To convert to fresh-gutted weight, multiply by 1.94.
Cod, scrod, salted	To convert to fresh-gutted weight, multiply by 1.98.
Crustaceans:	
Crabs, soft and peelers (Connecticut, New York, New Jersey, Delaware, Maryland, and Virginia).	To convert number of crabs to weight in pounds, divide by 4.
Crabs, soft and peelers (Louisiana).	To convert number of crabs to weight in pounds, divide by 2.9.
Crabs, soft and peelers (other States).	To convert number of crabs to weight in pounds, divide by 3.
Crabs, hard (Georgia, North Carolina, and South Carolina).	To convert number of crabs to weight in pounds, divide by 2.
Crabs, hard (Florida)	To convert number of crabs to weight in pounds, divide by 2.01.
Crabs, hard (Alabama)	To convert number of crabs to weight in pounds, divide by 2.06.
Crabs, hard (Mississippi)	To convert number of crabs to weight in pounds, divide by 2.18.
Crabs, hard (Louisiana)	To convert number of crabs to weight in pounds, divide by 2.15.
Crabs, hard (Texas)	To convert number of crabs to weight in pounds, divide by 2.30.
Crabs, hard (other Atlantic Coast States)	To convert number of crabs to weight in pounds, divide by 3.
Cusk, salted	To convert to fresh-gutted weight, multiply by 1.90.
Haddock, large, salted	To convert to fresh-gutted weight, multiply by 2.06.
Haddock, scrod, salted	To convert to fresh-gutted weight, multiply by 2.10.
Hake, large, salted	To convert to fresh-gutted weight, multiply by 1.90.
Hake, small, salted	To convert to fresh-gutted weight, multiply by 1.98.

Halibut, salted	To convert to fresh-gutted weight, multiply by 2.
Herring, salted	To convert to round weight, multiply by 1.50.
Mackerel, salted	To convert to round weight, multiply by 1.35.
Menhaden	To convert number of fish to weight in pounds, multiply by 0.6.
Pollock, salted	To convert to fresh-gutted weight, multiply by 1.90.
Sponges, dried (Florida):	
Large wool	To convert number of bunches to weight in pounds, multiply by 3.5.
Medium wool	To convert number of bunches to weight in pounds, multiply by 1.75.
Small wool	To convert number of bunches to weight in pounds, multiply by 1.
Wool rags	To convert number of bunches to weight in pounds, multiply by 2.25.
Grass	To convert number of bunches to weight in pounds, multiply by 1.
Wire	To convert number of bunches to weight in pounds, multiply by 1.5.
Yellow	To convert number of bunches to weight in pounds, multiply by 1.25.

COMMON AND SCIENTIFIC NAMES OF FISHERY PRODUCTS

In order to prevent misunderstanding in the use of common names employed in the tables and discussions, the following list of common and scientific names is given:

Common and scientific names of the commercial fishery products caught in the United States and Alaska

Common name as shown in Bureau reports	Other common names	Scientific names
Albacore	See tuna	
Alewives	Branch herring, wall-eyed or big-eyed herring. Blueback, glut herring	*Pomolobus pseudoharengus.* *Pomolobus æstivalis.*
Amberjack		Seriola species.
Anchovies		*Engraulis mordax.* *Anchoviella delicatissima.* *Anchoviella compressa.*
Angelfish		*Pomacanthus arcuatus.* *Angelichthys isabelita.*
Barracuda		*Sphyraena argentea.*
Black bass	Smallmouth bass Largemouth bass	*Micropterus dolomieu.* *Micropterus salmoides.*
Bluefish	Tailor	*Pomatomos saltatrix.*
Blue pike	Pike perch, blue pickerel (Canada)	*Stizostedion glaucum.*
Blue runner or hardtail	Runner	*Caranx crysos.*
Bonito		*Sarda sarda.* *Sarda chiliensis.*
Bowfin		*Amia calva.*
Buffalofish		Ictiobus species.
Butterfish		*Poronotus triacanthus.*
Burbot	Lawyer, ling	*Lota maculosa.*
Cabio	Coalfish, crab eater, cobia	*Rachycentron canadus.*
Cabrilla	Rock bass	*Epinephelus analogus* (Pacific coast).
Carp	German carp	*Cyprinus carpio.*
Catfish and bullheads		Ameiurus species. Ictalurus species. *Leptops olivaris.*
Chubs	Tullibee in Canada; longjaw, bluefin, blackfin in United States.	All *Leuchichthys* except *artedi* (in Great Lakes).
Cigarfish	Scad	*Decapterus punctatus.*
Cisco	Herring in Canada	*Leucichthys artedi* (Lake Erie only).
Cod	Codfish	*Gadus macrocephalus* (Pacific coast). *Gadus callarias* (Atlantic coast).
Crappie	White crappie Black crappie, strawberry bass, calico bass.	*Pomoxis annularis.* *Pomoxis sparoides.*
Crevalle		*Caranx hippos.*
Croaker	Crocus, hardhead	*Micropogon undulatus.*

Common and scientific names of the commercial fishery products caught in the United States and Alaska—Continued

Common name as shown in Bureau reports	Other common names	Scientific names
Cunner	Chogset, blue perch, bergall	*Tautogolabrus adspersus.*
Cusk		*Brosme brosme.*
Dolly Varden trout	Salmon trout, bull trout	*Salvelinus parkei.*
Dolphin		*Coryphaena hippurus.*
Drum:		
Black		*Pogonias cromis.*
Red	Channel bass, redfish, spotted bass	*Sciaenops ocellatus.*
Eels:		
Common		*Anguilla rostrata.*
Conger		*Leptocephalus conger.*
Flounders	Flounders, flukes, soles, "California halibut," dabs.	Pleuronectidae species.
Flyingfish		*Cypsilurus californicus.*
Frigate mackerel	"Boo Hoo"	*Auxis thazard.*
Garfish	See sea gar	
Gizzard shad	Nanny shad, mud shad	*Dorosoma cepedianum.*
Goldeye		Hiodon species.
Goldfish	Sand perch	*Carassius auratus.*
Goosefish	Allmouth	*Lophius piscatorius.*
Grayfish	Dogfish	*Squalus sucklii* (Pacific coast).
	Spiny dog	*Squalus acanthias.*
	Smooth dog	*Mustelus mustelus.*
Groupers	"Sea bass"	Epinephelus species. Myceteroperca species.
Grunts	Margatefish, sailors choice (Key West)	Haemulon species.
Haddock		*Melanogrammus aeglefinus.*
Hake	Squirrel hake, Boston hake, ling, black hake, mud hake.	Urophycis species (Atlantic coast).
	Merluccio	*Merluccius productus* (Pacific coast).
Halibut		*Hippoglosuss hippoglossus.*
Hardhead		*Orthodon microlepidotus* (Pacific coast).
Harvestfish	Starfish, dollarfish, pappyfish; butterfish (N. C.).	*Peprilus alepidotus.*
Herring:		
Lake	Herring	*Leucichthys artedi* (Great Lakes, except Erie).
Round		*Etrumeus sadina.*
Sea		*Clupea harengus* (Atlantic coast). *Clupea pallasii* (Pacific coast).
Herring smelt	Sea smelt	*Argentina silus.*
Hickory shad	Tailor shad, skip	*Pomolobus mediocris.*
Hogfish	Capitaine, perro perro	*Lachnolaimus maximus* (Florida).
Horse mackerel	Pacific	*Trachurus symmetricus.*
	Atlantic—See tuna.	
Jewfish		*Promicrops itaiara.*
Kingfish	King mackerel, cerro	*Scomberomorus cavalla* (Atlantic coast). *Scomberomorus regalis* (Atlantic coast).
	Little roncador, croaker	*Genyonemus lineatus* (California).
King whiting	Northern whiting, kingfish, sea mink	Menticirrhus species.
Lake trout		*Cristivomer namaycush.*
Lamprey		*Petromyzon marinus.*
Launce	Sand eel, lant, sand launce	*Ammodytes americanus.*
"Lingcod"	Cultus cod, blue cod, buffalo cod, ling	*Ophiodon elongatus.*
Mackerel		*Scomber scombrus* (Atlantic coast). *Scomber diego* (Pacific coast).
Marlin	Spearfish	*Tetrapturus mitsukurii* (Pacific coast).
Menhaden	Mossbunker, pogy, fatback	*Brevoortia tyrannus.*
Minnows		Cyprinidae species.
Mojarra		Eucinostomus species.
Mooneye	Toothed herring	Hiodon species.
Moonfish		*Vomer setipinnis.* *Selene vomer.*
Mullet	Jumping mullet	Mugil species.
Mummichog	Mayfish, killifish	Fundulus species.
Muttonfish		*Lutianus analis.*
Paddlefish	Spoonbill cat	*Polyodon spathula.*
Perch (California)	See surffishes.	
Permit	See pompano.	
Pigfish	Hogfish (N. C.)	*Orthopristis chrysopterus.*
Pike or pickerel	Great Lakes pike	*Esox reticulatus.* *Esox lucius.*
Pilchard	Sardine	*Sardina caerulea.*
Pilotfish		*Naucrates ductor.* *Seriola zonata.*
Pinfish	Bream, salt-water bream	*Lagodon rhomboides.*
Pollock		*Pollachius virens.*
Pompano	Permit, great pompano	*Trachinotus goodei.*
		Trachinotus species (Atlantic coast).
		Palometa simillima (Pacific coast).
Porgies	Porgee	Calamus species.
Porkfish	Sisi	*Anisotremus virginicus.*

Common and scientific names of the commercial fishery products caught in the United States and Alaska—Continued

Common name as shown in Bureau reports	Other common names	Scientific names
Quillback	Spearfish or skimfish	Carpiodes species.
Roach	Shiner	*Notemigonus crysoleucas.*
Rock bass	Redeye, goggle-eye	*Ambloplites rupestris* (Mississippi River to Atlantic seaboard).
	Groupers	*Paralabrax nebulifer* (Pacific coast).
Rockfishes	Rock cod	Sebastodes species (Pacific coast).
Rosefish		*Sebastes marinus.*
Rudderfish	Blue bass, greenfish	*Girella nigricans* (Pacific coast).
	Halfmoon	*Medialuna californiensis* (Pacific coast).
Sablefish	Black cod	*Anoplopoma fimbria.*
Salmon:		
Atlantic		*Salmo salar* (Atlantic coast).
Pacific:		
Blueback, red, or sockeye.		*Oncorhynchus nerka.*
Chinook or king	Tyee, spring	*Oncorhynchus tschawytscha.*
Chum or keta	Dog salmon	*Oncorhynchus keta.*
Humpback or pink.		*Oncorhynchus gorbuscha.*
Silver or coho		*Oncorhynchus kisutch.*
Steelhead	See steelhead trout.	
Sauger	Sand pike	*Stizostedion canadense.*
Sculpin		Cottidae species.
Scup	Paugy or porgy, fair maid	Stenotomus species.
Sea bass	Black jewfish or black sea bass	*Stereolepis gigas* (Pacific coast).
	Black sea bass, blackfish	*Centropristes striatus* (Atlantic coast).
	White sea bass	*Cynoscion nobilis* (Pacific coast).
Sea catfish	Gafftopsail	*Bagre marina.*
Sea robin		Prionotus species.
Shad	American shad	*Alosa sapidissima.*
Sharks		Carcharodon species; Mustelus species; Carcharhinus species; *Sphyrna* species.
Sheepshead		*Archosargus probatocephalus* (Atlantic coast). *Archosargus unimaculatus* (Florida).
	Drum, fresh water	*Aplodinotus grunniens* (fresh water).
Sheepshead, California	Redfish, fathead	*Pimelometopon pulcher.*
Silver perch	Sand perch	*Bairdiella chrysura.*
Silversides	Spearing	Menidia species.
Skates		Raja species.
Skipper	Billfish	*Scombersox saurus.*
Smelts		*Osmerus mordax* (Atlantic coast).
		Argentinidae species (Pacific coast).
	Eulachon	*Thaleichthys pacificus.*
Snapper:		
Mangrove	Gray snapper	*Lutianus griseus.*
Red		*Lutianus blackfordii.*
Snook	Robalo, sergeantfish	*Centropomus undecimalis.*
Spadefish	Porgy (N. C.)	*Chætodipterus faber.*
Spanish mackerel		*Scomberomorus maculatus.*
Splittail		*Pogonichthys macrolepidotus.*
Spot	Lafayette, goody	*Leiostomus xanthurus.*
Squawfish	Sacramento pike	*Ptychocheilus grandis.*
Squeteague:		
Gray	Gray trout, weakfish, trout	*Cynoscion regalis.*
Spotted	Spotted weakfish, spotted trout	*Cynoscion nebulosus.*
White	Sand trout	*Cynoscion arenarius.*
Squirrel hake	See hake.	
Steelhead trout	Salmon trout	*Salmo gairdneri.*
Striped bass	Rockfish, rock	*Roccus lineatus.*
Sturgeon		Acipenser species.
Sturgeon, shovelnose		*Scaphirhynchus platorynchus.*
Sucker	Fresh-water mullet	Catostomidae species.
Sunfish	Bream, perch	Lepomis species. Centrarchidae species.
Surffishes	Perch	Embiotocidae species.
Swellfish	Puffer, swell toad, balloonfish, globefish.	*Spheroides maculatus.*
Swordfish		*Xiphias gladius.*
Tautog	Blackfish, oysterfish	*Tautoga onitis.*
Tenpounder	Elops	*Elops saurus.*
Thimble-eyed mackerel	Bullseye	*Scomber colias.*
Tilefish		*Lopholatilus chamæleonticeps.*
Tomcod		*Microgadus tomcod* (Atlantic coast). *Microgadus proximus* (Pacific coast).
Tripletail		*Lobotes surniamensis.*
Tullibees	See chubs.	
Tuna and tunalike fishes:		
Albacore	Longfin tuna	*Germo alalunga.*
Bluefin	Tuna, leaping tuna (Pacific coast)	*Thunnus saliens.*
	"Horse mackerel" (Atlantic coast)	*Thunnus thynnus.* *Thunnus secundodorsalis.*

Common and scientific names of the commercial fishery products caught in the United States and Alaska—Continued

Common name as shown in Bureau reports	Scientific names	Other common names
Tuna and tunalike fishes—Continued.		
Bonito		*Sarda sarda* (Atlantic coast). *Sarda chiliensis* (Pacific coast).
Skipjack	Striped tuna	*Euthynnus pelayms.*
Yellowfin		*Neothunnus macropterus.*
Turbot	Greenland halibut	*Reinhardtius hippoglossoides* (off New England.)
	American turbot, triggerfish	*Balistes carolinensis* (off Florida).
Wahoo		*Acanthocybium solandri.*
White bass	White lake bass	*Roccus chrysops.*
Whitebait	Small fry of several species.	
Whitefish:		
Common		*Coregonus clupeiformis* (Great Lakes). *Caulolatilus princeps* (Pacific coast).
Menominee		*Prosopium quadrilaterale.*
White perch		*Morone americana* (Atlantic coast).
Whiting	Silver hake	*Merluccius bilinearis.*
Wolffish		*Anarhichas lupus.*
Yellow perch		*Perca flavescens.*
Yellow pike	Wall-eyed pike, pike perch, dore	*Stizostedion vitreum.*
Yellowtail		*Ocyurus chrysurus* (Atlantic coast). *Seriola dorsalis* (Pacific coast).
Crabs:		
Hard	Hard-shell crab, blue crab	*Callinectes sapidus.*
	Dungeness crab	*Cancer magister* (Pacific coast).
	Rock crab, hard crab	*Cancer irroratus* (Atlantic coast).
Soft and peelers	Soft-shelled crab, blue crab	*Callinectes sapidus.*
King		*Paralithodes camtschatica* (Pacific coast).
King or horseshoe		*Limulus* (Atlantic coast).
Stone		*Menippi mercenaria.*
Crawfish:		
Fresh water	Crayfish	Cambarus species (Atlantic coast). Astacus species (Pacific coast).
Sea	Rock lobster, crayfish	*Panulirus argus* (Atlantic coast). *Panulirus interruptus* (Pacific coast).
Lobsters:		
Common		*Homarus americanus* (Atlantic coast).
Spiny	(See sea crawfish.)	
Shrimp		*Peneus setiferus.* *Peneus brasiliensis* (Atlantic and Gulf coasts). Pandalus species (Pacific coast). Pandalopsis species (Pacific coast). Crangon species (Pacific coast).
Abalone		Halotis species.
Clams:		
Cockle		*Cardium corbis* (Pacific coast).
Hard	Butter	*Saxidomus nuttall.*
	Round clam, cherrystone, quahog, little neck.	*Tirela stultorum* (Pacific coast). *Venus mercenaria* (Atlantic coast). *Venus mortoni* (Florida coast).
Pismo		*Tivela stultorum* (Pacific coast).
Razor		Ensis species (Atlantic coast). *Siliqua patula* (Pacific coast).
Soft	Soft shell clam, sand clam, nannynose, maninose.	Mya arenaria.
Surf	Skimmer	*Mactra solidissimo.*
Cockles	Moonshell	*Natica heros* (Atlantic coast).
Conchs		Strombus species. Busycon species.
Coquina	Pompano shells	*Donax variabilis.*
Mussels:		
Sea		*Mytilus californianus* (Pacific coast). *Mytilus edulis.*
Fresh water		Quadrula species. Lampsilis species. Unio species. Symphynota species.
Octopus		*Octopus punctatus* (Pacific coast).
Oysters:		
Eastern		*Ostrea virginica.*
Western	Olympia	*Ostrea lurida* (Pacific coast).
Japanese (introduced).	Pacific	*Ostrea gigas.*
Periwinkles		Littorina species.
Scallops:		
Bay		*Pecten irradians* (Atlantic coast). *Pecten aequisulcatus* (Pacific coast).
Sea		*Pecten magellanicus.*
Squid		*Loligo opalescens* (Pacific coast). *Loligo pealei* (Atlantic coast).

Common and scientific names of the commercial fishery products caught in the United States and Alaska—Continued

Common name as shown in Bureau reports	Scientific names	Other common names
Sea urchins		Echinoidea.
Terrapin	Diamond-back terrapin	Malaclemmys species.
Turtles:		
Green		*Chelonia mydas.*
Loggerhead		*Thalassochelys caretta.*
Hawksbill		*Chelonia inbricata.*
Snapping	Hard shell, alligator turtle	*Chelydra serpentina.* *Macrochalys lacertina.*
Soft shell		Trionyx species.
Frogs		Rana species.
Irish moss		*Chrondrus crispus.*
Kelp		Macrocystis species; Nereocystis species; Pelagophycus species; Alaria species.
Sponges:		
Glove		*Spongia graminea* (Hyatt) *Euspongia officianalis* (L.).
Grass		*Hippospongia equina cerebriformis.*
Sheepswool		*Hippospongia canaliculata gossypina.*
Yellow		*Hippospongia equina elastica.*
Trepang	Sea cucumber	*Cucumaris frondosa; Thyone briareus.*